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(12) **United States Plant Patent**  
**Riker**

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(54) **CHERRY TREE NAMED 'RR2A'**

(50) Latin Name: *Prunus avium L.*  
Varietal Denomination: **RR2a**

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patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.

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(51) **Int. Cl.**  
**A01H 5/00** (2006.01)

(52) **U.S. Cl.** ..... **Plt./181**

(58) **Field of Classification Search** ..... **Plt./181**  
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

PP15,386 P2 11/2004 Brown

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(57) **ABSTRACT**

A new and distinct variety of cherry tree, *Prunus avium L.*,  
denominated RR2a, which is similar to Bing (not patented)  
and Staccato (not patented) but which matures in mid August  
and has very firm fruit with high titratable acids, and a long  
storage life in common cold storage.

**5 Drawing Sheets**

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Latin name of the genus and species claimed: *Prunus*  
*avium L.*

Variety denomination: 'RR2a'.

**BACKGROUND OF THE INVENTION**

The distinct and new variety of cherry tree was discovered  
by Russell Riker in about 1998 in a block of "Bing" cherries  
(unpatented) that had been planted in 1971 at an orchard in  
Wenatchee Heights Orchard, Chelan County, Wash. Cherries  
of this "mother" tree were noted to mature nearly a month  
later than cherries of the adjacent Bing trees. The mother tree  
was named "RR2a." The new variety was asexually repro-  
duced by grafting at the orchard in Wenatchee, Wash. More  
specifically, in 1999 two second generation trees were grafted  
on mazzard root stock, and in 2000 seven third generation  
trees were grafted on mazzard root stock. Fruit from the  
second and third generation trees has been observed from  
2004 to present and been found to be consistent with the fruit  
of the mother tree. The mother tree was at first thought to be  
a whole tree mutation. However, S-allele testing conducted in  
2008 determined that the RR2a trees have the S-allele geno-  
type S<sub>3</sub>S<sub>4</sub>' such that it was not possible that the RR2a origi-  
nated as a bud spore of Bing. The tree therefore is believed to  
be a chance seedling. No commercial propagation nor distri-  
bution has been carried out.

**BRIEF SUMMARY OF THE INVENTION**

The new variety is similar to Bing cherry with respect to  
tree morphology dealing with wood, leaves, bloom and tree  
growth habit. Fruit shape is also similar to Bing cherry fruit,  
as is the pH of mature fruit, but the RR2a differs from Bing in  
maturity date (approximately 36 days later), firmness (ap-  
proximately twice as firm), and sugar content (approximately  
1.4. lower sugar content). The new variety also has been  
compared to "Staccato" (unpatented) grown near the same  
location and been found to have lower fruit pH readings than  
Staccato cherry, similar levels of fruit sugar content, but much  
firmer than Staccato. RR2a also matures approximately 10

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days following Staccato. RR2a is unique in that it will main-  
tain its firmness for up two months in cold storage.

**BRIEF DESCRIPTION OF THE DRAWINGS**

The accompanying photographs show the following char-  
acteristics of this new variety:

FIG. 1 is a photograph of the RR2a mother tree during  
bloom;

FIG. 2 is a photograph of a blooming cluster from the RR2a  
mother tree;

FIG. 3 is a photograph of a fruiting limb of the RR2a  
mother tree at harvest maturity;

FIG. 4 is a comparison photograph of Bing cherries and  
RR2a cherries;

FIG. 5 is a chart comparing characteristics of RR2a, Bing,  
and Staccato cherries (firmness ratings were measured using  
a Firm Tech firmness tester and ratings are in milligrams  
needed to depress 1 mm).

**DETAILED BOTANICAL DESCRIPTION**

The following detailed description of the characteristics of  
the new variety of cherry tree is based on observations of the  
second and third generation trees during the 2004–2007 sea-  
sons at Wenatchee Wash., unless indicated otherwise. Color  
terminology is in accordance with The Royal Horticulture  
Society Colour chart (see [www.rhs.org.uk/Learning/Publication/pubs\\_library\\_colorchart.htm](http://www.rhs.org.uk/Learning/Publication/pubs_library_colorchart.htm)).

Tree:

*Size*.—Medium large for cherry (21 ft. tall by 18 ft. wide  
when trained to open upright steep leader); the same  
as the adjacent Bing cherry trees; moderately vigor-  
ous (average growth of mother tree is 30 cm); branch-  
ing habit is upright and spreading out at 45°.

*Density*.—Moderate; forms many spurs.

*Form*.—Upright and moderately spreading habit.

*Hardiness*.—Hardy in area where discovered and tested;  
same as for Bing and Staccato cherry trees.

- Production*.—Considered moderate to moderately heavy; same as for Bing cherry.
- Bearing*.—Regular and consistent.
- Trunk size*.—Moderately stocky (26.7 cm in diameter at 46 cm above soil line).
- Trunk bark texture*.—Medium with smooth areas; typical for sweet cherry.
- Trunk bark color*.—From the greyed-purple group N186C.
- Trunk lenticels*.—Numerous, rough, large (averaging 2.6 cm long and 0.64 cm wide), color is from the white group N155a.
- Branches:
- Branch size*.—Scaffold branches are stocky, averaging 15.6 cm in diameter; fruiting branches are thin, averaging 0.52 cm in diameter; current (first year) branches are thin, averaging 0.47 cm in diameter.
- Branch texture*.—Smooth, typical for sweet cherry.
- Branch color*.—Color of scaffold branches is from the grade-red group 178A; color of the fruiting branches is from the brown group 200B; color of the current branches is from the greyed-brown group 199A.
- Branch lenticels*.—Lenticels are numerous on scaffold branches averaging 1.64 cm long by 0.51 cm wide with color from the greyed-white group 156C; for fruiting branches, lenticels are present averaging approximately 8 per linear cm and of a size approximately 1 mm wide by 1.7 mm long with color from the white group N155A; lenticels are present on first year branches but small (averaging 1 mm in diameter and approximately 8 per linear cm) with color from the white group N155A.
- Leaves: Measurements are from the mid-point of actively growing 2007 season's growth at harvest maturity:
- Size*.—Medium large, averaging 12.2 cm long by 7.0 cm wide.
- Form*.—Oval in shape with a mucronate tip and rounded base.
- Color*.—From the yellow-green group, upper surface is 147A, lower surface is 174B.
- Mid-vein*.—Large, 2 to 3 mm in diameter, underside color from the yellow-green group 145A.
- Petiole*.—Medium in length averaging 3.6 cm, upper surface from the greyed-purple group 187B, lower surface from the yellow-green group 146C.
- Leaf texture*.—Smooth.
- Margin*.—Crenate to finely serrate.
- Glands*.—Variable in number (2 to 5) averaging 2.7 per petiole, oval in shape 1.5–2.5 mm wide by 3 mm long, positioned both opposite and alternate on rim of petiole groove starting 5 to 10 mm from blade.
- Stipules*.—Present average 15 mm in length.
- Flower buds:
- Measurements are from the 2007 growing season*.—Hardy, plump and conical, medium size (5.02 mm to 8.12 mm).
- Flowers:
- Measurements are from the 2007 growing season*.—Self-fertile, consistent with S-allele genotype S<sub>3</sub>S<sub>4</sub>'.
- First bloom*.—Apr. 22, 2007 (full bloom on Apr. 27, 2007).
- Size*.—Large, averaging 3.8 cm in diameter.
- Color*.—White.
- Bloom count*.—Average 3.4 per bud.
- Petals*.—Average length 15.9 mm, average width 13.4 mm, color is white.
- Nectaries*.—Color is in the yellow-green group 144B.
- Anthers*.—Small, oval in shape, 0.5 mm by 1.0 mm, color is in the greyed-orange group N167B.
- Pollen*.—When mature, color in the yellow-orange group 14B.
- Pedice*.—Average length 36.4 mm; color in the yellow-green group 144D.
- Sepals*.—Curled backwards and flat against the pedicel, color is in the yellow-green group 143D, with moderate surface and tip highlights in the red-purple group 59B.
- Fruit:
- Maturity*.—Harvest date August 17 (5 year average 2001–2005).
- Size*.—Large, diameter transversely across suture average 2.7 cm; diameter apically averaged 2.6 cm.
- Form*.—Uniform, more reniform than round.
- Suture*.—Very shallow, not raised; is slightly darker than the skin.
- Base*.—Rounded.
- Apex*.—Rounded pistil point, slightly indented.
- Stem*.—Moderate in length (average length 4.3 cm), thin, color from the green group 138C.
- Skin*.—Medium thickness, medium texture, tenacious to flesh, color from the greyed-purple group 187B.
- Flesh color*.—From the red-purple group 59B.
- Flesh texture*.—Firm and crisp.
- Fibers*.—Moderate in number.
- Ripens*.—Moderately evenly.
- Flavor*.—Sweet and low acid.
- Aroma*.—Slight.
- Eating quality*.—Good.
- Pit cavity*.—Color from the purple group N77A.
- Stone:
- Type*.—Very shallow, semi-free.
- Size*.—Medium, average 11.5 mm long by 10.9 mm wide.
- Form*.—Oval, rounded base, oblong helium, round to round-conical apex.
- Sides*.—Equal.
- Surface*.—Smooth.
- Ventral edge*.—1 mm wide narrow suture that is subtended by two low ridges converging basally and apically that averages 6 mm wide at the midpoint.
- Dorsal edge*.—Sharp, smooth, slightly raised ridge from base to apex.
- Color*.—From the greyed-orange group 164C.
- Tendency to split*.—None.
- Use: Late season premium fresh market;
- Keeping quality: Very good, up to 30 days in common refrigerated storage;
- Resistance to insects and diseases: Shows no unusual susceptibility nor resistance to any disease and/or plant or fruit pests of sweet cherry found in central Washington State;
- Shipping quality: Excellent;
- Variance in botanical details: RR2a exhibits the above-described characteristics as grown in Wenatchee, Chelan County, Wash. It is expected that differences may occur when grown in areas exhibiting different growing conditions.
- I claim:
1. A new and distinct variety of cherry tree as herein shown and described.



*Fig.1.*

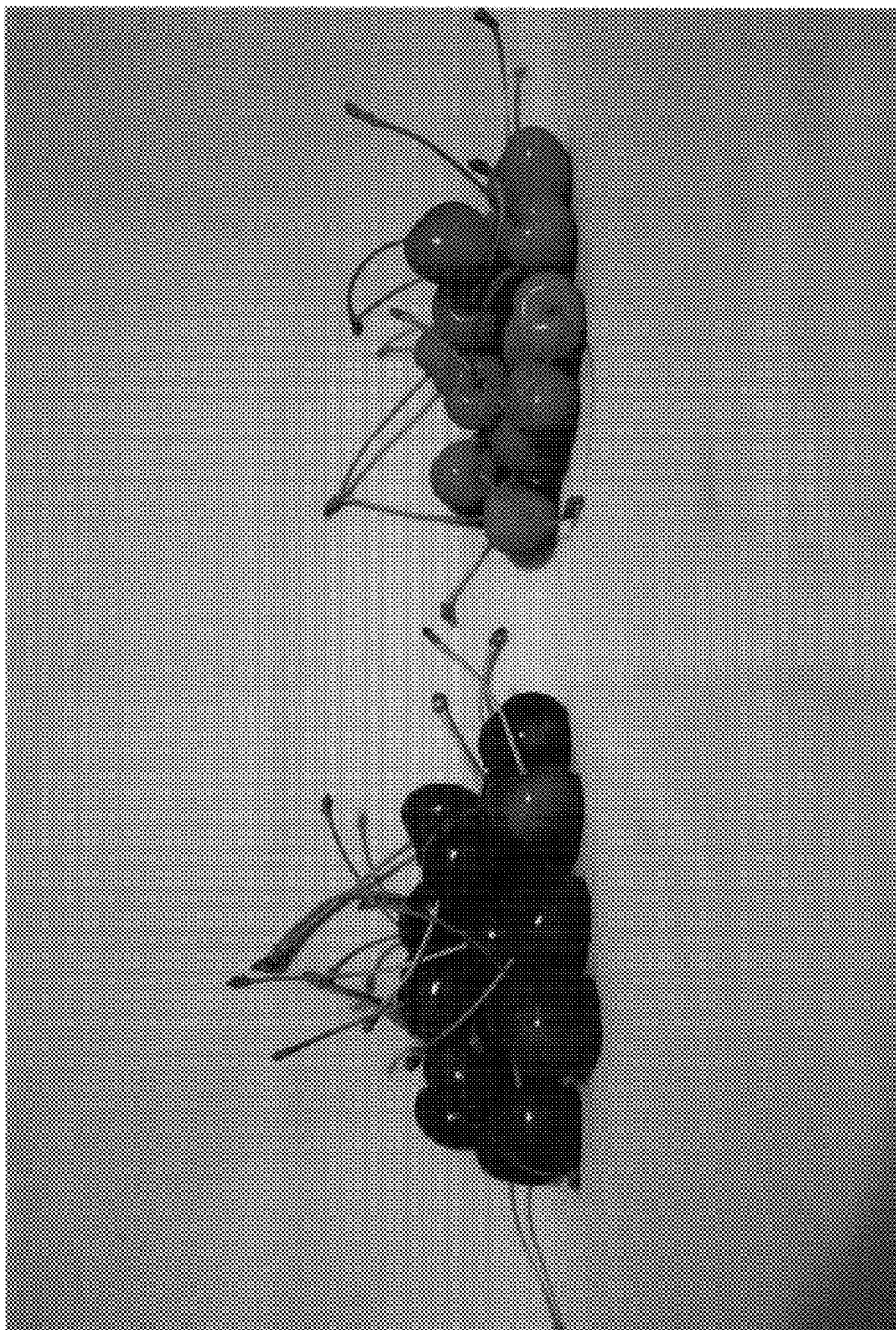


*Fig.2.*



*Fig.3.*





*Fig. 4.*

Variety	Harvest Date	Size Range	Peak Size	Average Brix	pH	Firmness Range	Average Firmness
Bing	7/10/2007	9 - 10.5	9.5	20.2	3.72	163 - 329.1	246
RR2a	8/16/2007	9 - 10	9.5	18.8	3.74	375 - 686.3	485.1
Staccato	8/6/2007	8.5 - 10	9	18.4	3.87	293.3 - 456.6	373
RR2a (after cold Storage)	10/18/2007 (from cold Storage)	9 - 10	9.5	18.6	4.45	367.5 - 692.7	473.9

*Fig. 5.*