



## APPLICATIONS UNDER EXAMINATION

## CRANBERRY

### CRANBERRY (*Vaccinium macrocarpon*)

<b>Proposed denomination:</b>	'CNJ99-52-15'
<b>Trade name:</b>	Welker
<b>Application number:</b>	14-8500
<b>Application date:</b>	2014/11/24 (priority claimed)
<b>Applicant:</b>	Rutgers, The State University of New Jersey, New Brunswick, New Jersey, United States of America
<b>Agent in Canada:</b>	Cassan Maclean, Ottawa, Ontario
<b>Breeder:</b>	Nicholi Vorsa, Rutgers, The State University of New Jersey, Atco, New Jersey, United States of America Jennifer Johnson-Cicalese, Rutgers, The State University of New Jersey, Medford, New Jersey, United States of America

Note: The applicant has requested an exemption from compulsory licensing to allow time to multiply and distribute propagating material of the variety. If the exemption is granted, it may be allowed for two years from the date rights are granted for the variety.

**Varieties used for comparison:** 'NJS98-35' (Demoranville), 'NJS98-23' (Crimson Queen) and 'CNJ99-9-96' (Haines)

**Summary:** *The plants of 'CNJ99-52-15' flower early in the season whereas the plants of 'NJS98-23' flower mid-season and the plants of 'CNJ99-9-96' flower late in the season. The plants of 'CNJ99-52-15' reach harvest maturity early in the season whereas the plants of 'CNJ99-9-96' reach harvest maturity mid-season. The berry of 'CNJ99-52-15' is shorter than that of 'NJS98-35' and longer than that of 'CNJ99-9-96'. The berry of 'CNJ99-52-15' has a low to medium length to width ratio whereas the berry of both 'NJS98-35' and 'NJS98-23' have medium to high length to width ratios. The surface of the berries for 'CNJ99-52-15' is even (smooth) whereas the surface of the berries for 'NJS98-23' is uneven in an irregular pattern. With the bloom removed, the skin of the berry of 'CNJ99-52-15' is purple red whereas the skin colour for 'CNJ99-9-96' is medium red.*

#### **Description:**

YOUNG PLANT: medium to dense

PLANT: early season flowering, early season harvest maturity

BERRY: shape ranging from pyriform to round, medium to large, low to medium length to width ratio, even fruit surface, purple red skin with bloom removed, uniform colour

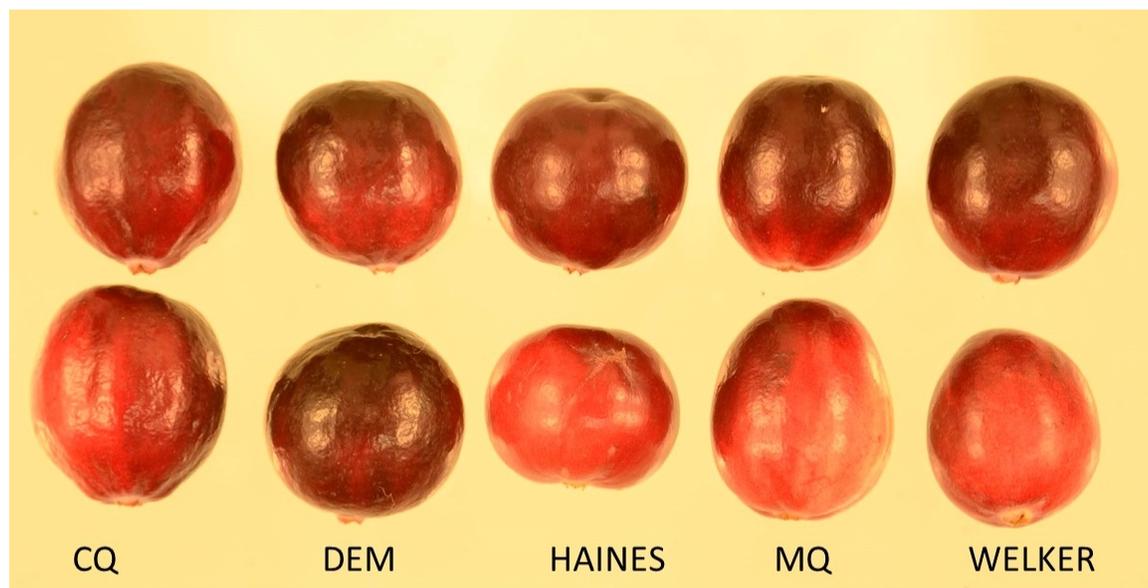
**Origin and Breeding:** 'CNJ99-52-15' originated from the cross made in 1999 at Rutgers University in Chatsworth, New Jersey, USA between '#35', as the female parent, and 'NJS98-34', as the male parent. A single plant was initially selected from 112 progenies for its yield potential, time of fruit ripening, berry size, shape and colour. In 2007, 'CNJ99-52-15' was selected and planted in replicated variety trials in Oregon, Washington and Wisconsin, USA for additional evaluation. Final advancement of 'CNJ99-52-15' was based on yield and time of fruit ripening.

**Tests and Trials:** The comparative trial for 'CNJ99-52-15' was conducted during the 2019 growing season at the British Columbia Cranberry Growers Association Research Farm in Delta, British Columbia. In 2017, the trial was planted with 8 plots of 6 plants per plot of each variety for a total of 48 plants per variety. Plots were arranged in a RCB Design, with 8 replications. At the time of planting, there was a spacing of approximately 0.9 metres between plots and a spacing of approximately 0.3 metres between plants. Observations were taken on 20 plants or parts of plants of each variety. Measurements were taken on a minimum of 58 berries of each variety.

**Comparison table for 'CNJ99-52-15'**

	'CNJ99-52-15'	'NJS98-35'*	'NJS98-23'*	'CNJ99-9-96'*
<i>Berry length (mm)</i>				
mean	17.8	19.2	17.7	15.1
std. deviation	2.1	2.0	2.5	1.8

\*reference varieties



NJS98-23

NJS98-35

CNJ99-9-96

CNJ97-105-4

CNJ99-52-15

Cranberry: 'CNJ99-52-15' (furthest right) with reference varieties 'NJS98-35' (second from left), 'NJS98-23' (furthest left) and 'CNJ99-9-96' (centre)

**Proposed denomination:** 'CNJ99-9-96'**Trade name:** Haines**Application number:** 14-8499**Application date:** 2014/11/24 (priority claimed)**Applicant:** Rutgers, The State University of New Jersey, New Brunswick, New Jersey, United States of America**Agent in Canada:** Cassan Maclean, Ottawa, Ontario**Breeder:** Nicholi Vorsa, Rutgers, The State University of New Jersey, Atco, New Jersey, United States of America

Jennifer Johnson-Cicalese, Rutgers, The State University of New Jersey, Medford, New Jersey, United States of America

Note: The applicant has requested an exemption from compulsory licensing to allow time to multiply and distribute propagating material of the variety. If the exemption is granted, it may be allowed for two years from the date rights are granted for the variety.

**Varieties used for comparison:** 'NJS98-35' (Demoranville), 'NJS98-23' (Crimson Queen), 'CNJ97-105-4' (Mullica Queen) and 'CNJ99-52-15' (Welker)

**Summary:** The plants of 'CNJ99-9-96' flower late in the season whereas the plants of 'NJS98-23' and 'CNJ97-105-4' flower mid-season and the plants of 'NJS98-35' and 'CNJ99-52-15' flower early in the season. The plants of 'CNJ99-9-96' reach harvest maturity at mid-season whereas the plants of 'NJS98-35', 'NJS98-23' and 'CNJ99-52-15' reach maturity early

in the season. The berry of 'CNJ99-9-96' is shorter than that of all the reference varieties. The berry of 'CNJ99-9-96' has a low length to width ratio whereas the berry of both 'NJS98-23' and 'CNJ97-105-4' have medium length to width ratio and the berry of 'NJS98-35' has a medium to high length to width ratio. The surface of the berries of 'CNJ99-9-96' is even (smooth) whereas the surface of the berries for 'NJS98-23' is uneven in an irregular pattern. With the bloom removed, the skin of the berry of 'CNJ99-9-96' is medium red whereas the skin colour for 'NJS98-35' and 'CNJ99-52-15' is purple red. The skin of the berry of 'CNJ99-9-96' has a uniform colour whereas that of 'CNJ97-105-4' is not uniform.

**Description:**

YOUNG PLANT: medium to dense

PLANT: late season flowering, mid-season harvest maturity

BERRY: oblate or rectangular/block shape, medium size, low length to width ratio, even fruit surface, medium red skin with bloom removed, uniform colour

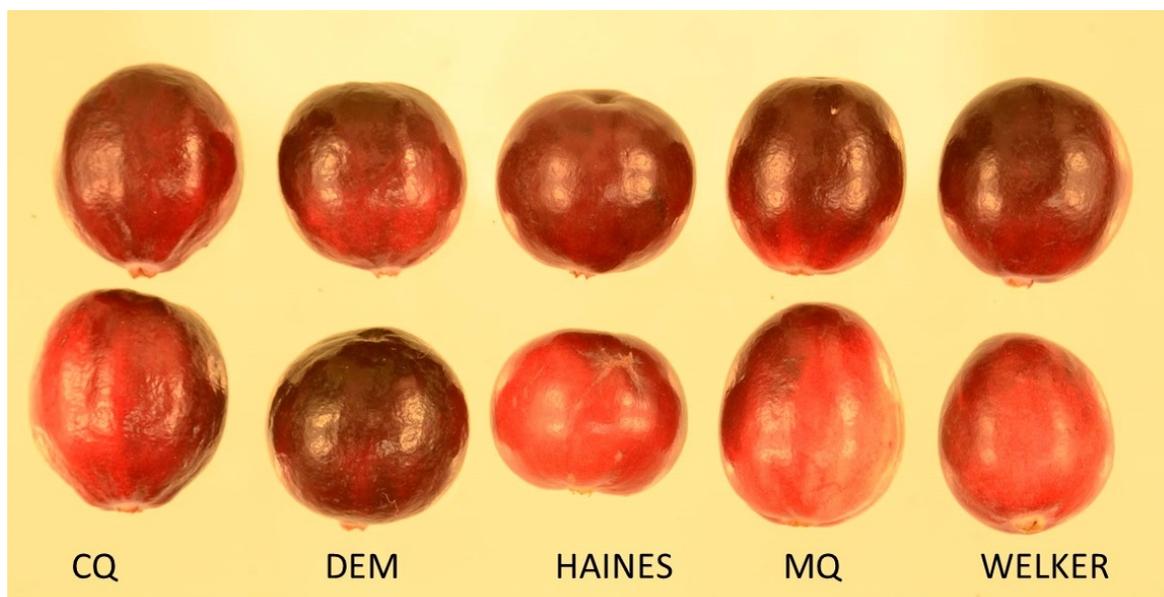
**Origin and Breeding:** 'CNJ99-9-96' originated from the cross made in 1999 at Rutgers University in Chatsworth, New Jersey, USA between 'NJ S 98-23', as the female parent, and '#35', as the male parent. A single plant was initially selected from 138 progenies for its yield potential, time of fruit ripening, berry size, shape and colour. In 2007, 'CNJ99-9-96' was selected and planted in replicated variety trials in Oregon, Washington and Wisconsin, USA for additional evaluation. Final advancement of 'CNJ99-9-96' was based on yield and time of fruit ripening.

**Tests and Trials:** The comparative trial for 'CNJ99-9-96' was conducted during the 2019 growing season at the British Columbia Cranberry Growers Association Research Farm in Delta, British Columbia. In 2017, the trial was planted with 8 plots of 6 plants per plot of each variety for a total of 48 plants per variety. Plots were arranged in an RCB Design, with 8 replications. At the time of planting, there was a spacing of approximately 0.9 metres between plots and a spacing of approximately 0.3 metres between plants. Observations were taken on 20 plants or parts of plants of each variety. Measurements were taken on a minimum of 58 berries of each variety.

**Comparison table for 'CNJ99-9-96'**

	'CNJ99-9-96'	'NJS98-35'*	'NJS98-23'*	'CNJ97-105-4'*	'CNJ99-52-15'*
<i>Berry length (mm)</i>					
mean	15.1	19.2	17.7	18.2	17.8
std. deviation	1.8	2.0	2.5	2.0	2.1

\*reference varieties



NJS98-23

NJS98-35

CNJ99-9-96

CNJ97-105-4

CNJ99-52-15

Cranberry: 'CNJ99-9-96' (centre) with reference varieties 'NJS98-35' (second from left), 'NJS98-23' (furthest left) and 'CNJ97-105-4' (second from right)