



APPLICATIONS UNDER EXAMINATION

RHODODENDRON

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(Rhododendron)

Proposed denomination: 'NCRX1'
Application number: 19-9952
Application date: 2019/06/25
Applicant: North Carolina State University, Raleigh, North Carolina, United States of America
Agent in Canada: BioFlora Inc., St. Thomas, Ontario
Breeder: Thomas Green Ranney, North Carolina State University, Arden, North Carolina, United States of America

Variety used for comparison: 'PKT2011'

Summary: *The mature leaf of 'NCRX1' is larger and has more hairs on the upper side than the mature leaf of 'PKT2011'. The inflorescence of 'NCRX1' has a medium number of flowers whereas the inflorescence of 'PKT2011' has many flowers. The margin of the inner side of the corolla lobe of 'NCRX1' is medium blue pink whereas the margin of the corolla lobe of 'PKT2011' is dark blue pink. The colour of the middle of the inner side of the corolla lobe is light blue pink for 'NCRX1' whereas that of 'PKT2011' is light violet. The markings on the inner side of the corolla throat of 'NCRX1' are absent or weak whereas those of 'PKT2011' are red. The margin of the corolla lobe of 'NCRX1' has a strong to very strong degree of undulation while that of 'PKT2011' has a weak degree of undulation. The anther of 'NCRX1' is purple whereas that of 'PKT2011' is yellow.*

Description:

PLANT: evergreen type, upright growth habit, begins flowering early

YOUNG LEAF: medium green

MATURE LEAF: upper side dark green, lower side light green, elliptic shape, medium density of hairs on upper side

INFLORESCENCE: medium number of flowers

FLOWER: medium funnel shape, single type, absent or weak intensity of fragrance

COROLLA LOBE: strong to very strong undulation of margin

COROLLA LOBE (INNER SIDE): margin medium blue pink (closest to RHS 70D), middle light blue pink (RHS 69C-D)

COROLLA LOBE (OUTER SIDE): margin medium blue pink (closest to RHS 63C) fading to light blue pink (RHS 73D) with age, middle medium purple red (closest to RHS 63A)

MARKINGS ON INNER SIDE OF COROLLA THROAT: absent or very weak conspicuousness

ANTHER: purple

Origin and Breeding: 'NCRX1' originated from a controlled cross conducted in June 2007 in Mills River, North Carolina between the female parent variety 'Pride's Early Red' and the proprietary male parent variety designated '2006-029'. A single unique seedling was selected from the resulting progeny in 2010 based on growth habit, flowering intensity, attractiveness and flower colour. Asexual reproduction of 'NCRX1' was first conducted by cuttings in 2010 in Mills River, North Carolina U.S.A.

Tests and Trials: The comparative trial of 'NCRX1' was conducted in a polyhouse during the winter of 2022 and spring of 2023 at BioFlora Inc. in St. Thomas, Ontario. The trial included a total of 10 plants each of the candidate and reference variety. All plants were grown from rooted cuttings transplanted into 7.5 litre containers in the summer of 2021. Observations and measurements were taken from 10 plants each of the candidate and reference variety on May 6, 2023. The mean differences were significant at the 5% probability level based on a paired Student's t-test. All colour determinations were made using the 2015 Royal Horticultural Society (RHS) colour chart.

Comparison table for 'NCRX1'

	'NCRX1'	PKT2011*
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Leaf length (cm)		
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mean	13.5	12.7
std. deviation	0.74	0.62

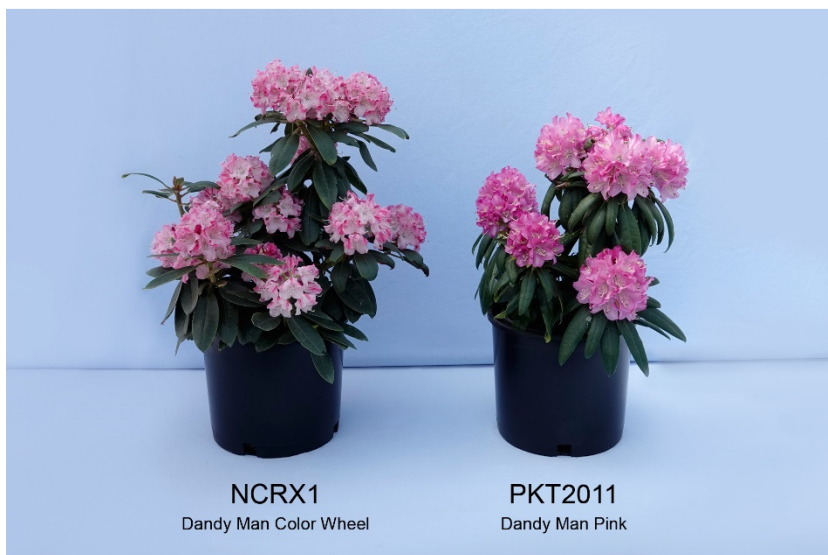
Leaf width (cm)

mean	4.7	3.3
std. deviation	0.43	0.33

Number of flowers

mean	15.1	24.4
std. deviation	3.35	3.95

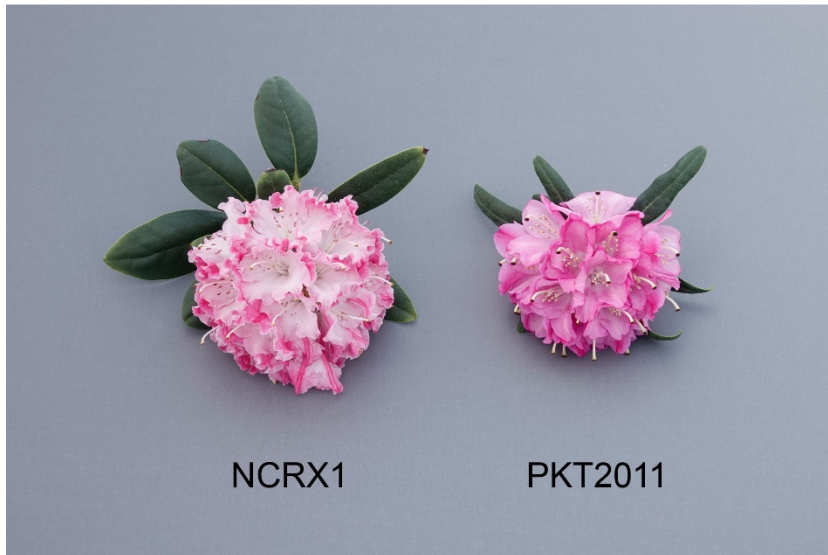
*reference variety



Rhododendron: 'NCRX1' (left) with reference variety 'PKT2011' (right)



Rhododendron: 'NCRX1' (left) with reference variety 'PKT2011' (right)



Rhododendron: 'NCRX1' (left) with reference variety 'PKT2011' (right)

Proposed denomination: 'NCRX2'
Application number: 19-9953
Application date: 2019/06/25
Applicant: North Carolina State University, Raleigh, North Carolina, United States of America
Agent in Canada: BioFlora Inc., St. Thomas, Ontario
Breeder: Thomas Green Ranney, North Carolina State University, Arden, North Carolina, United States of America

Variety used for comparison: 'Amy Cotta'

Summary: *The mature leaf of 'NCRX2' is larger than that of 'Amy Cotta'. 'NCRX2' begins flowering mid-season whereas 'Amy Cotta' flowers very early. The inflorescence of 'NCRX2' has a medium number of flowers whereas that of 'Amy Cotta' has many flowers. The flower of 'NCRX2' is shorter than that of 'Amy Cotta'. When newly opened, the margin on the inner side of the corolla lobe of 'NCRX2' is dark blue pink whereas that of 'Amy Cotta' is light violet. When newly opened, the middle of the inner side of the corolla lobe of 'NCRX2' is dark blue pink whereas that of 'Amy Cotta' is light violet. The conspicuousness of the markings on the inner side of the corolla throat of 'NCRX2' are medium to strong whereas those of 'Amy Cotta' are absent or very weak. The margin of the corolla lobe of 'NCRX2' has a weak degree of undulation whereas that of 'Amy Cotta' has a medium to strong degree of undulation.*

Description:

PLANT: evergreen type, upright growth habit, begins flowering mid-season

YOUNG LEAF: light green

MATURE LEAF: upper side dark green, lower side light to medium green, elliptic, absent or very sparse hairiness of upper side

INFLORESCENCE: medium number of flowers

FLOWER: open funnel shape, single type, absent or weak intensity of fragrance

COROLLA LOBE: medium degree of undulation of margin

COROLLA LOBE (INNER SIDE): margin dark blue pink (RHS N74C) with medium purple (RHS N74B) veins when newly opened, margin light violet (RHS 75A and N75A) when mature, middle dark blue pink (RHS N74C) when newly opened, middle light violet (RHS 75A and N75A) with dark blue pink (RHS N74C) tones when mature

COROLLA LOBE (OUTER SIDE): margin dark blue pink (RHS N74C) when newly opened, margin light violet (RHS 75A) with some dark blue pink (RHS N74C) when mature, middle light violet (RHS 75A) and dark blue pink (RHS N74C) with medium purple (RHS N74B) along veins when mature

COROLLA THROAT (MARKINGS ON INNER SIDE): medium to strong conspicuousness, red pink (RHS 53C) spots, spots not touching

Origin and Breeding: ‘NCRX2’ originated from a controlled cross conducted in 2007 in Mills River, North Carolina, U.S.A. between the female parent variety ‘Elite’ and the male parent variety ‘Bubblenum’. A single unique seedling was selected from the resulting progeny in June 2009 based on plant growth habit, flowering intensity, flower colour and winter foliage colour. Asexual reproduction of ‘NCRX2’ was first conducted by cuttings in June 2009 in Mills River, North Carolina U.S.A.

Tests and Trials: The comparative trial of ‘NCRX2’ was conducted in a polyhouse during the winter of 2021 and spring of 2022 at BioFlora Inc. in St. Thomas, Ontario. The trial included a total of 8 plants of the candidate variety and 6 plants of the reference variety. All plants were grown from rooted cuttings transplanted into 7.5 litre containers in the spring of 2021. Observations and measurements were taken from 8 plants or 10 parts of plants of the candidate variety, and from 6 plants or 10 parts of plants of the reference variety on March 17, 2022 (for flowers), and on August 16, 2022 for all other characteristics. The mean differences were significant at the 5% probability level based on a paired Student’s t-test. All colour determinations were made using the 2015 Royal Horticultural Society (RHS) colour chart.

Comparison table for ‘NCRX2’

	‘NCRX2’	‘Amy Cotta’*
<i>Leaf length (cm)</i>		
mean	7.6	5.8
std. deviation	0.38	0.32
<i>Leaf width (cm)</i>		
mean	3.2	2.5
std. deviation	0.24	0.17
<i>Flower length (cm)</i>		
mean	3.6	4.7
std. deviation	0.90	0.24

*reference variety



Rhododendron: ‘NCRX2’ (left) with reference variety ‘Amy Cotta’ (right)



Rhododendron: 'NCRX2' (left) with reference variety 'Amy Cotta' (right)



Rhododendron: 'NCRX2'