



## APPLICATIONS UNDER EXAMINATION

## BUTTERFLY BUSH

### BUTTERFLY BUSH (*Buddleja*)

**Proposed denomination:** 'Blue Chip'  
**Trade name:** Lo & Behold Blue Chip  
**Application number:** 07-6048  
**Application date:** 2007/11/16  
**Applicant:** North Carolina State University, Raleigh, North Carolina, United States of America  
**Agent in Canada:** Brenda Cole, BioFlora Inc., St. Thomas, Ontario  
**Breeder:** Layne K. Snelling, North Carolina State University, Raleigh, North Carolina, United States of America  
Dennis J. Werner, North Carolina State University, Raleigh, North Carolina, United States of America

**Varieties used for comparison:** 'Adokeep' (Adonis Blue) and 'White Ball'

**Summary:** 'Blue Chip' has denser branching and foliage than 'Adokeep'. 'Blue Chip' has a taller plant height than 'Adokeep'. 'Blue Chip' has a longer and wider leaf than the reference varieties. 'Blue Chip' has an ovate leaf shape while the reference varieties have an elliptic to lanceolate leaf shape. 'Blue Chip' has less pubescence on the upper side of the leaf blade than the reference varieties. 'Blue Chip' has a smaller corolla diameter than 'Adokeep'. 'Blue Chip' differs from the reference varieties in the colour of the corolla and flower bud.

#### **Description:**

SHRUB: deciduous, bushy growth habit, medium to many branches, medium to dense foliage  
STEM: thick, medium anthocyanin colouration, edged, light green and grey brown, no twisting

LEAF: opposite arrangement, simple, ovate, acuminate apex, acute base, crenate to dentate margin, weak glossiness on upper side, absent to very sparse pubescence on upper side, dense tomentose pubescence on lower side, very weak leaf fragrance, medium green on upper side, grey green on lower side, no variegation, petiole present

FLOWER: panicle, salverform shape, both terminal and axillary in position, semi-erect attitude, weak fragrance

FLOWER BUD: rounded apex, violet

COROLLA: concave in profile, 4 to 5 lobes, rounded lobe shape, medium undulation of margin, obtuse apex with crenate to serrate margin, violet on upper side with blue violet margin

COROLLA TUBE: yellow orange on inner side, brown reddish purple on outer side

**Origin and Breeding:** 'Blue Chip' originated as a third generation descendant from a cross between 'Honeycomb' and ('Nanho Purple' x *Buddleja lindleyana*), made in 2001 at North Carolina State University in Raleigh, North Carolina, USA. The seeds resulting from the cross were harvested in fall of 2001 and germinated in a greenhouse at North Carolina State University in the winter of 2002. The resulting seedlings were planted in field trials in spring of 2002. These plants flowered in summer of 2002 and seed was collected off of all plants and bulked. This bulk seed was germinated in the winter of 2003 and the resulting seedlings were planted in the field in spring of 2003. These plants flowered in summer of 2003 and one plant, designated NC2003-7, was selected for its compact growth habit and flower colour. Open pollinated seed was collected off this selection and the bulk seed was germinated in the winter of 2004. The resulting seedlings were planted in the field in the spring of 2004. These plants flowered in the summer of 2004 and a single plant, designated NC2004-9, was selected for its multi-branched, compact growth habit and attractive flower colour. This single plant was given the denomination 'Blue Chip'. The first asexual propagation by softwood to semi-hardwood stem cuttings was conducted in the fall of 2004, in Raleigh, North Carolina, USA.

**Tests and Trials:** 'Blue Chip' was tested in an outdoor trial during the spring/summer of 2008 in St. Thomas, Ontario. The trial consisted of a total of 16 plants of the candidate variety and 8 plants of the reference varieties. All plants were grown from 4 1/2 inch rooted liners in the spring of 2007 and transplanted into 3 gallon containers. Observations and measurements

were taken from 10 plants of each variety on July 25, 2008. All colour measurements were made using the 2001 Royal Horticultural Society (RHS) Colour Chart.

**Comparison table for 'Blue Chip'**

	'Blue Chip'	'Adokeep'*	'White Ball'*
<i>Plant height (cm)</i>			
mean	56.3	43.8	56.3
std. deviation	3.13	3.80	3.87
<i>Leaf length (cm)</i>			
mean	9.7	7.4	6.7
std. deviation	0.67	0.47	0.56
<i>Leaf width (mm)</i>			
mean	3.7	1.9	1.7
std. deviation	0.15	0.17	0.22
<i>Corolla diameter (cm)</i>			
mean	5.8	7.9	5.8
std. deviation	0.63	0.57	0.65
<i>Flower colour (RHS)</i>			
flower bud	77A	N88A	white
corolla - upper side	84A, margins 90C	93B-C	white
corolla tube - inner side	23A	23A	17B
corolla tube - outer side	77A	77A	white

\*reference varieties



Butterfly Bush: 'Blue Chip' (left) with reference variety 'White Ball' (right)



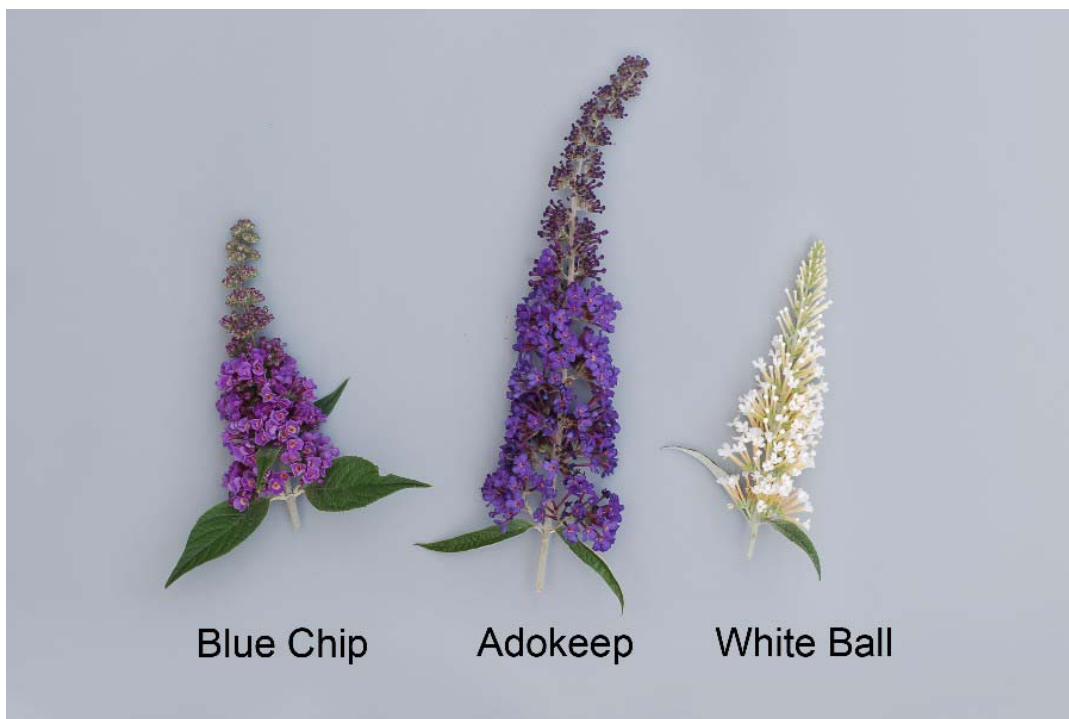
Blue Chip

Lo & Behold Blue Chip

Adokeep

Adonis Blue

Butterfly Bush: 'Blue Chip' (left) with reference variety 'Adokeep' (right)



Blue Chip

Adokeep

White Ball

Butterfly Bush: 'Blue Chip' (left) with reference variety 'Adokeep' (centre) and 'White Ball' (right)

---

**Proposed denomination:** 'Miss Ruby'  
**Application number:** 07-6047  
**Application date:** 2007/11/16  
**Applicant:** North Carolina State University, Raleigh, North Carolina, United States of America  
**Agent in Canada:** Brenda Cole, BioFlora Inc., St. Thomas, Ontario

**Breeder:** Layne K. Snelling, North Carolina State University, Raleigh, North Carolina, United States of America  
Dennis J. Werner, North Carolina State University, Raleigh, North Carolina, United States of America

**Variety used for comparison:** 'Peakeep' (Peacock)

**Summary:** 'Miss Ruby' has a smaller inflorescence diameter and shorter inflorescence length than 'Peakeep'. 'Miss Ruby' has a smaller corolla diameter than 'Peakeep'. 'Miss Ruby' differs from 'Peakeep' in the colour of the corolla and flower bud.

**Description:**

SHRUB: deciduous, upright bushy growth habit, medium branching density, sparse to medium foliage density  
STEM: thick, weak anthocyanin colouration, edged, green brown, no twisting

LEAF: opposite arrangement, simple, lanceolate, acuminate apex, acute base, crenate to dentate margin, weak glossiness on upper side, sparse pubescence on upper side, dense tomentose pubescence on lower side, no fragrance, medium green on upper side, grey green on lower side, no variegation, petiole present

FLOWER: panicle, salverform shape, both terminal and axillary in position, erect attitude, weak to medium fragrance

FLOWER BUD: conical, purple

COROLLA: flat in profile, reflexing tip, 4 to 5 lobes, rounded lobe shape, weak undulation of margin, obtuse apex with dentate margin, purple on upper side

COROLLA TUBE: yellow orange on inner side, dark purple red on outer side.

**Origin and Breeding:** 'Miss Ruby' originated as a first generation descendent from a cross between 'White Ball' and 'Attraction', made in 2002 at the North Carolina State University in Raleigh, North Carolina, USA. The seeds resulting from the cross were harvested in the fall of 2002 and germinated in a greenhouse at North Carolina State University in the winter of 2003. The resulting seedlings were planted in field trials in spring of 2003. These plants flowered in summer of 2003 and one seedling was selected for its compact growth habit, attractive grey-green leaf colour and flower colour. This seedling was initially designated NC2003-22 and then given the denomination 'Miss Ruby'. The first asexual propagation by softwood to semi-hardwood stem cuttings was conducted in the fall of 2003.

**Tests and Trials:** 'Miss Ruby' was tested in an outdoor trial during the spring/summer of 2008 in St. Thomas, Ontario. The trial consisted of a total of 16 plants of the candidate variety and 8 plants of the reference variety. All plants were grown from 4 1/2 inch rooted liners in the spring of 2008 and transplanted into 3 gallon containers. Observations and measurements were taken from 10 plants of each variety on July 25, 2008. All colour measurements were made using the 2001 Royal Horticultural Society (RHS) Colour Chart.

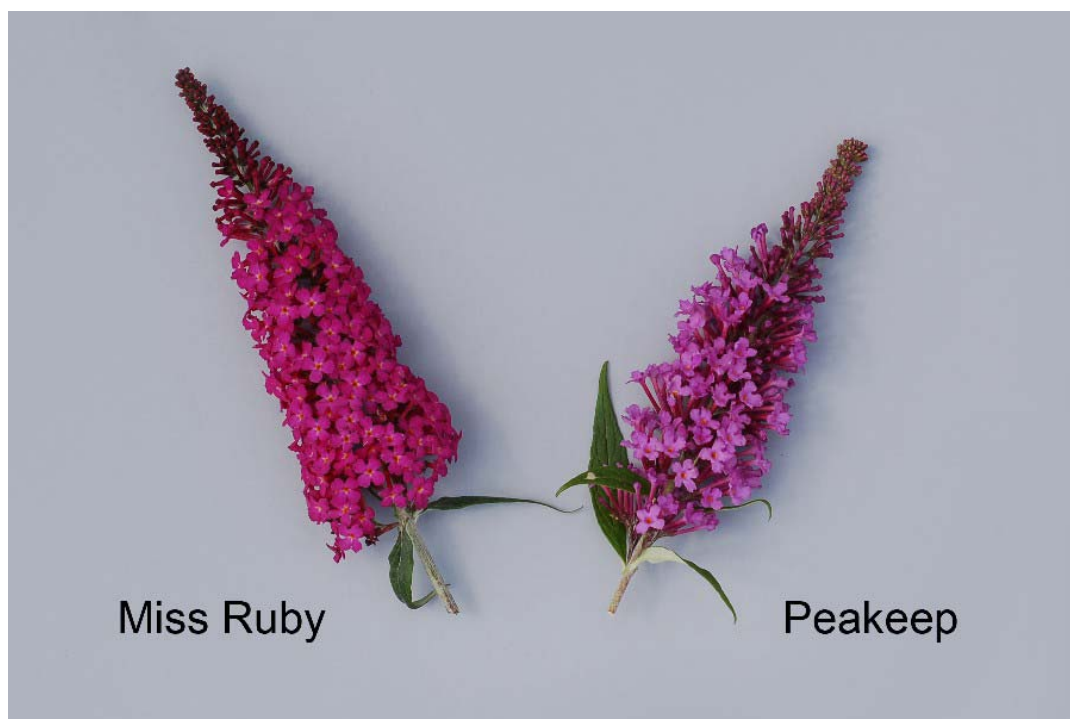
**Comparison table for 'Miss Ruby'**

	'Miss Ruby'	'Peakeep'*
<i>Inflorescence diameter (cm)</i>		
mean	4.4	5.8
std. deviation	0.54	0.61
<i>Inflorescence length (cm)</i>		
mean	11.6	16.9
std. deviation	1.59	2.89
<i>Corolla diameter (mm)</i>		
mean	8.6	10.7
std. deviation	0.52	0.48
<i>Flower colour (RHS)</i>		
flower bud	64A	N82A-B
corolla - upper side	71B-C	84A
corolla tube - inner side	21A	25A
corolla tube - outer side	60B	87A

\*reference variety



Butterfly Bush: 'Miss Ruby' (left) with reference variety 'Peakeep' (right)



Butterfly Bush: 'Miss Ruby' (left) with reference variety 'Peakeep' (right)



Butterfly Bush: 'Miss Ruby' (left) with reference variety 'Peakeep' (right)