



## APPLICATIONS UNDER EXAMINATION

## HYDRANGEA

### HYDRANGEA (*Hydrangea*)

**Proposed denomination:** 'HBA1301'  
**Application number:** 04-4228  
**Application date:** 2004/06/16  
**Applicant:** Hydrangea Breeders Association b.v., De Kwakel, The Netherlands  
**Agent in Canada:** BioFlora Inc., St. Thomas, Ontario  
**Breeder:** Niels Arts, Aalsmeer, The Netherlands

**Variety used for comparison:** 'Blauling'

**Summary:** *'HBA1301' has shorter plants with larger diameter sterile flower than 'Blauling'. The incisions of the leaf blade margin are coarse for 'HBA1301' while they are medium type for 'Blauling'. Arrangement of the large calyx flowers in the inflorescence of 'HBA1301' is in two or more whorls while for 'Blauling' it is in one whorl. The shape of the inflorescence of 'HBA1301' is globular to flattened whereas it is flattened for 'Blauling'. Colouration on the upper side of the large calyx of 'HBA1301' is weaker than that of 'Blauling'. The upper side of the large calyx of 'HBA1301' is light blue pink fading towards the light yellow base whereas for 'Blauling' it is blue pink with a violet margin and white base.*

**Description:**

PLANT: upright growth habit

STEM: absent or very weak anthocyanin colouration

LEAF BLADE: medium to dark green on upper side, no variegation, medium to strong glossiness on upper side, moderate to strong anthocyanin colouration along margin edge, ovate shape, acuminate apex, ranging between round and oblique base, no lobing, coarse incisions of margin

PETIOLE: absent or very weak anthocyanin colouration

INFLORESCENCE: flowers with small calyx are conspicuous, flowers with large calyx arranged in two or more whorls, globular to flattened shape

PEDUNCLE: moderate anthocyanin colouration

LARGE CALYX (STERILE FLOWER): weak colour intensity, upper side is light blue pink (RHS 65B-C) fading towards base and aging to blue pink to light blue pink (RHS 65A-C) with lighter margin, base of upper side is light yellow (RHS 4D), four sepals per flower, strong overlapping of sepals, crenate incisions of margin present on some sepals

SMALL CALYX (FERTILE FLOWER): medium colour intensity, flower buds are blue pink (RHS N74C-D), petals are violet (RHS 75A-B)

ANTHERS: near-white colour of moderate intensity

**Origin and Breeding:** 'HBA1301' was developed by the breeder, Niels Arts, in Aalsmeer, The Netherlands. The objectives of his breeding program were to create new Hydrangea varieties with attractive flower colour and no requirement for vernalization. 'HBA1301' originated from a cross conducted in July 1999 between the female parent designated '97151-02' and the male parent designated '981145'. 'HBA1301' was selected by the breeder in March 2001 in Glandorf, Germany. Asexual reproduction by vegetative cuttings was first conducted in March 2003 in Glandorf, Germany.

**Tests and Trials:** Trials for 'HBA1301' were conducted in a polyhouse in spring 2009 at BioFlora Inc. in St. Thomas, Ontario. The trial included 10 plants of each variety. All plants were grown from cuttings rooted April 2008 and transplanted into 15 cm pots in May 2008. Observations and measurements were taken from 10 plants or parts of plants of each variety on May 20, 2009. All colour determinations were made using the 2001 Royal Horticultural Society (RHS) Colour charts.

Comparison table for 'HBA1301'

	'HBA1301'	'Blauling'*
<i>Plant height (cm)</i>		
mean	24.0	34.4
std. deviation	4.43	1.35
<i>Large calyx diameter (cm)</i>		
mean	5.1	4.2
std. deviation	0.50	0.39
<i>Colour of flowers (RHS)</i>		
large calyx - upper side	65B-C fading towards base and aging to 65A-C with lighter margin	68B with 75B margin
large calyx - base	4D	white aging to pink
small calyx - bud	N74C-D	68B
small calyx - petal	75A-B	75B

\*reference variety



Hydrangea: 'HBA1301' (left) with reference variety 'Blauling' (right)



Hydrangea: 'HBA1301' (left) with reference variety 'Blauling' (right)



Hydrangea: 'HBA1301' (left) with reference variety 'Blauling' (right)

**Proposed denomination:** 'HBA1701'  
**Application number:** 04-4229  
**Application date:** 2004/06/16  
**Applicant:** Hydrangea Breeders Association b.v., De Kwakel, The Netherlands  
**Agent in Canada:** BioFlora Inc., St. Thomas, Ontario  
**Breeder:** Niels Arts, Aalsmeer, The Netherlands

**Varieties used for comparison:** 'Doris' and 'Renate Steiniger'

**Summary:** 'HBA1701' has medium incisions of the leaf blade margin while those of 'Doris' are fine. 'HBA1701' has a smaller inflorescence diameter and weaker colour intensity of the large calyx than 'Doris'. The upper side of the large calyx of 'HBA1701' is blue pink fading to light blue pink towards the base while it is purple red aging to blue pink for 'Doris' and blue pink with a lighter blue pink margin for 'Renate Steiniger'. Incisions of the sepal margins of the large calyx of 'HBA1701' are present on all sepals while for 'Doris' they are absent on all sepals. The shape of the incisions of the sepal margins in the large calyx is serrate for 'HBA1701' while it is crenate for 'Renate Steiniger'.

**Description:**

PLANT: upright growth habit

STEM: strong specks of anthocyanin colouration

LEAF BLADE: medium green on upper side, no variegation, weak glossiness on upper side, weak anthocyanin colouration along margin edge, ranges between elliptic and obovate shape, acuminate apex, ranges between acute and oblique base, no lobing, medium type incisions of margin

PETIOLE: weak anthocyanin colouration

INFLORESCENCE: flowers with small calyx are inconspicuous, dome shape

PEDUNCLE: weak anthocyanin colouration

LARGE CALYX (STERILE FLOWER): weak to moderate colour intensity, upper side is blue pink (RHS 65A) with light blue pink (RHS 65B-C) towards base, four to five sepals per flower, strong overlapping of sepals, serrate incisions of margin present on all sepals

**Origin and Breeding:** 'HBA1701' was developed by the breeder, Niels Arts, in Aalsmeer, The Netherlands. The objectives of his breeding program were to create new Hydrangea varieties with attractive flower colour and no requirement for vernalization. 'HBA1701' originated from a cross conducted in July 1999 between the female parent designated '98122-05' and the male parent designated '98002'. 'HBA1701' was selected by the breeder in March 2001 in Glandorf, Germany. Asexual reproduction by vegetative cuttings was first conducted in March 2003 in Glandorf, Germany.

**Tests and Trials:** Trials for 'HBA1701' were conducted in a polyhouse in spring 2009 at BioFlora Inc. in St. Thomas, Ontario. The trial included 10 plants of the candidate variety and reference variety 'Doris' and 2 plants of reference variety 'Renate Steiniger'. All plants were grown from cuttings rooted April 2008 and transplanted into 15 cm pots in May 2008. Observations and measurements were taken from 10 plants or parts of plants of each variety on May 20, 2009. All colour determinations were made using the 2001 Royal Horticultural Society (RHS) Colour charts.

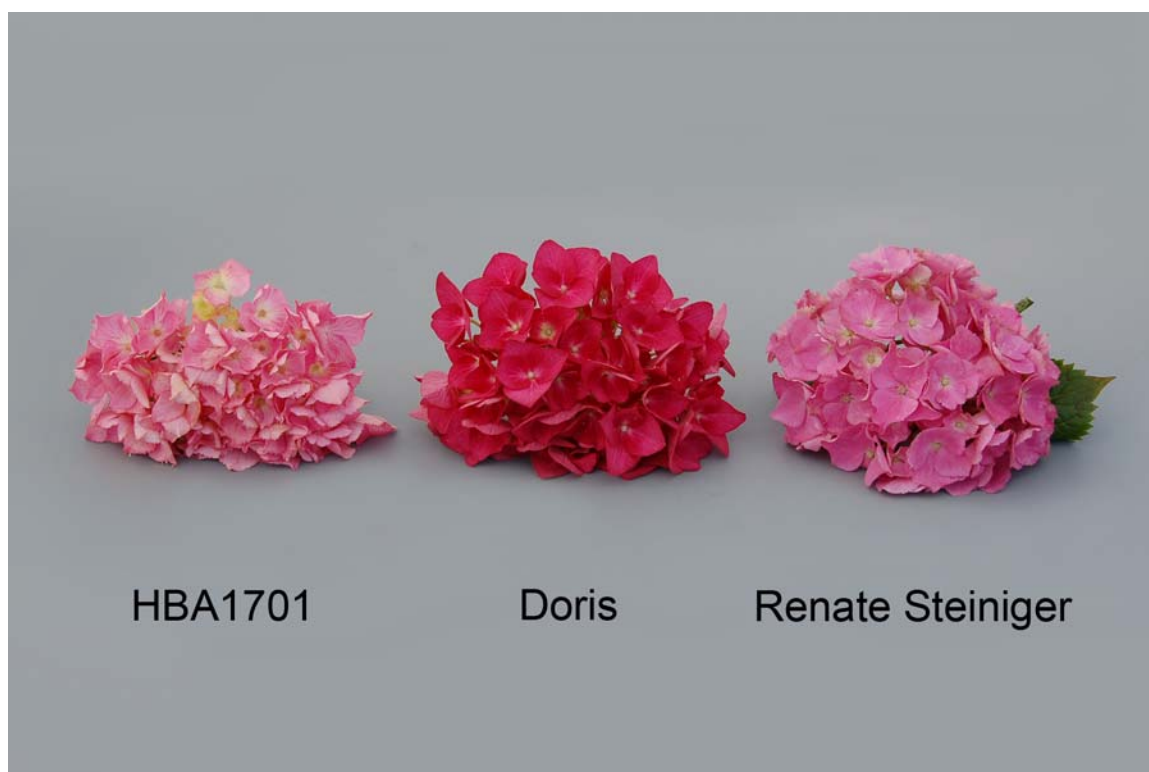
**Comparison table for 'HBA1701'**

	'HBA1701'	'Doris'*	'Renate Steiniger'*
<i>Inflorescence diameter (cm)</i>			
mean	14.9	18.3	14.6
std. deviation	1.25	0.87	0.36
<i>Colour of large calyx (RHS)</i>			
upper side	65A fading to 65B-C towards base	darker and redder than 63A aging to 63B-C	N66C-D with 73B margin

\*reference varieties



Hydrangea: 'HBA1701' (left) with reference varieties 'Doris' (centre) and 'Renate Steiniger' (right)



Hydrangea: 'HBA1701' (left) with reference varieties 'Doris' (centre) and 'Renate Steiniger' (right)



Hydrangea: 'HBA1701' (left) with reference varieties 'Doris' (centre) and 'Renate Steiniger' (right)

**Proposed denomination:** 'HBA2001'  
**Application number:** 04-4230  
**Application date:** 2004/06/16  
**Applicant:** Hydrangea Breeders Association b.v., De Kwakel, The Netherlands  
**Agent in Canada:** BioFlora Inc., St. Thomas, Ontario  
**Breeder:** Niels Arts, Aalsmeer, The Netherlands

**Varieties used for comparison:** 'Blauling' and 'Mars'

**Summary:** 'HBA2001' has shorter plants and stronger anthocyanin colouration of the stems than both 'Blauling' and 'Mars'. The flowers of the inflorescence with small calyx are conspicuous for 'HBA2001' whereas they are inconspicuous for 'Mars'. Arrangement of the flowers with large calyx is in two or more whorls for 'HBA2001' whereas it is only in one whorl for 'Blauling'. The upper side of the large calyx of 'HBA2001' is purple to blue pink with lighter blue pink tones while for 'Blauling' it is blue pink with a violet margin and white base and for 'Mars' it is blue pink with lighter blue pink tones and a light yellow basal spot.

**Description:**

PLANT: upright growth habit

STEM: strong to very strong anthocyanin colouration

LEAF BLADE: medium green on upper side, no variegation, medium glossiness on upper side, moderate anthocyanin colouration along margin edge, ovate shape, acuminate apex, ranging between acute and obtuse base, no lobing, medium type incisions of margin

PETIOLE: absent or very weak anthocyanin colouration

INFLORESCENCE: flowers with small calyx are conspicuous, flowers with large calyx arranged in two or more whorls, flattened dome shape

PEDUNCLE: moderate anthocyanin colouration

LARGE CALYX (STERILE FLOWER): strong colour intensity, upper side is purple to blue pink (RHS 67A-B) with lighter blue pink (RHS 68A) tones, four sepals per flower, strong overlapping of sepals, crenate incisions of margin present on some sepals

SMALL CALYX (FERTILE FLOWER): medium to strong colour intensity, flower buds are violet (RHS 75A-B), petals are light blue violet (RHS 76C) with blue pink (RHS N74C) tones

ANTHERS: purple colour of moderate intensity

**Origin and Breeding:** ‘HBA2001’ was developed by the breeder, Niels Arts, in Aalsmeer, The Netherlands. The objectives of his breeding program were to create new Hydrangea varieties with attractive flower colour and no requirement for vernalization. ‘HBA2001’ originated from a cross conducted in July 1999 between the female parent designated ‘98102-04’ and the male parent designated ‘98003’. ‘HBA2001’ was selected by the breeder in March 2001 in Glandorf, Germany. Asexual reproduction by vegetative cuttings was first conducted in March 2003 in Glandorf, Germany.

**Tests and Trials:** Trials for ‘HBA2001’ were conducted in a polyhouse in spring 2009 at BioFlora Inc. in St. Thomas, Ontario. The trial included 10 plants of each variety. All plants were grown from cuttings rooted April 2008 and transplanted into 15 cm pots in May 2008. Observations and measurements were taken from 10 plants or parts of plants of each variety on May 20, 2009. All colour determinations were made using the 2001 Royal Horticultural Society (RHS) Colour charts.

**Comparison table for ‘HBA2001’**

	‘HBA2001’	‘Blauling’*	‘Mars’*
<i>Plant height (cm)</i>			
mean	16.9	34.4	21.4
std. deviation	1.47	1.35	2.20
<i>Colour of flowers (RHS)</i>			
large calyx - upper side	67A-B with 68A tones	68B with 75B near margin	63B with 63C tones
large calyx - base	N/A	white aging to pink	4D spot
small calyx - bud	75A-B	68B	N/A
small calyx - petal	76C with N74C tones	75B with 73A tones	N/A
*reference varieties			



Hydrangea: 'HBA2001' (left) with reference varieties 'Blauling' (centre) and 'Mars' (right)



Hydrangea: 'HBA2001' (left) with reference varieties 'Blauling' (centre) and 'Mars' (right)





Hydrangea: 'HBA2001' (left) with reference varieties 'Blauling' (centre) and 'Mars' (right)

**Proposed denomination:** 'HBA724077'  
**Application number:** 04-4231  
**Application date:** 2004/06/16  
**Applicant:** Hydrangea Breeders Association b.v., De Kwakel, The Netherlands  
**Agent in Canada:** BioFlora Inc., St. Thomas, Ontario  
**Breeder:** Niels Arts, Aalsmeer, The Netherlands

**Variety used for comparison:** 'Doris'

**Summary:** 'HBA724077' has stronger anthocyanin colouration of the stem and peduncle than 'Doris'. The upper side of the sepals of the large calyx is dark purple red for 'HBA724077' while it is purple red aging to blue pink for 'Doris'. Incisions of the sepal margins of the large calyx of 'HBA724077' are present on all sepals while for 'Doris' they are absent on all sepals. 'HBA724077' has longer sepals of the large calyx than 'Doris'.

**Description:**

PLANT: upright growth habit

STEM: strong anthocyanin colouration

LEAF BLADE: medium green on upper side, no variegation, medium glossiness on upper side, weak anthocyanin colouration along margin edge, ranges between elliptic and ovate shape, acuminate apex, acute base, no lobing, fine incisions of margin

PETIOLE: moderate anthocyanin colouration

INFLORESCENCE: flowers with small calyx are inconspicuous, dome shape

PEDUNCLE: very strong anthocyanin colouration

LARGE CALYX (STERILE FLOWER): very strong colour intensity, upper side is dark purple red (RHS 60A), four sepals per flower, strong overlapping of sepals, crenate incisions of margin present on all sepals

**Origin and Breeding:** ‘HBA724077’ was developed by the breeder, Niels Arts, in Aalsmeer, The Netherlands. The objectives of his breeding program were to create new Hydrangea varieties with attractive flower colour and no requirement for vernalization. ‘HBA724077’ originated from a cross conducted in July 1999 between the female parent designated ‘98010’ and the male parent designated ‘98003’. ‘HBA724077’ was selected by the breeder in March 2001 in Glandorf, Germany. Asexual reproduction by vegetative cuttings was first conducted in March 2003 in Glandorf, Germany.

**Tests and Trials:** Trials for ‘HBA724077’ were conducted in a polyhouse in spring 2009 at BioFlora Inc. in St. Thomas, Ontario. The trial included 10 plants of each variety. All plants were grown from cuttings rooted April 2008 and transplanted into 15 cm pots in May 2008. Observations and measurements were taken from 10 plants or parts of plants of each variety on May 20, 2009. All colour determinations were made using the 2001 Royal Horticultural Society (RHS) Colour charts.

**Comparison table for ‘HBA724077’**

	‘HBA724077’	‘Doris’*
<i>Colour of large calyx (RHS)</i>		
upper side	60A	darker and redder than 63A aging to 63B-C
<i>Length of sepal of large calyx (cm)</i>		
mean	3.3	2.7
std. deviation	0.26	0.27

\*reference variety



Hydrangea: ‘HBA724077’ (left) with reference variety ‘Doris’ (right)



Hydrangea: 'HBA724077' (left) with reference variety 'Doris' (right)



Hydrangea: 'HBA724077' (left) with reference variety 'Doris' (right)

**HYDRANGEA**  
(*Hydrangea macrophylla*)

**Proposed denomination:** 'Hycativ'  
**Application number:** 06-5564  
**Application date:** 2006/07/28  
**Applicant:** Hydrangea Breeders Association b.v., De Kwakel, The Netherlands  
**Agent in Canada:** BioFlora Inc., St. Thomas, Ontario  
**Breeder:** Niels Arts, Aalsmeer, The Netherlands

**Varieties used for comparison:** 'Mars' and 'Doris'

**Summary:** 'Hycativ' has shorter plants than 'Doris'. The upper side of the large calyx of 'Hycativ' is bicoloured purple with a white margin whereas for 'Mars' it is blue pink with lighter blue pink tones and a light yellow basal spot and for 'Doris' it is purple red aging to blue pink. The sepals of the large calyx of 'Hycativ' have serrate incisions on all sepals while those of the reference varieties have no incisions on all sepals.

**Description:**

PLANT: upright growth habit

STEM: very weak overall with some strong spots of anthocyanin colouration

LEAF BLADE: medium green on upper side, no variegation, medium glossiness on upper side, moderate anthocyanin colouration along margin edge (when present), ranging between elliptic and ovate shape, acuminate apex, ranging between acute and obtuse base, no lobing, medium type incisions of margin

PETIOLE: absent or very weak anthocyanin colouration

INFLORESCENCE: flowers with small calyx are inconspicuous, dome shape

PEDUNCLE: very strong anthocyanin colouration (when present)

LARGE CALYX (STERILE FLOWER): strong to very strong colour intensity, upper side is purple (RHS 58A) with a white (RHS N155D) margin, four sepals per flower, strong overlapping of sepals, serrate incisions of margin present on all sepals

**Origin and Breeding:** 'Hycativ' was developed by the breeder, Niels Arts, in Aalsmeer, The Netherlands. The objectives of his breeding program were to create new Hydrangea varieties with bicoloured flowers, strong root systems and strong branching. 'Hycativ' originated from a cross conducted in February 2001 in De Kwakel, The Netherlands between the female parent designated '99110-5' and the male parent designated '99165-3'. Based on its flower colour and strong root system, 'Hycativ' was selected by the breeder in February 2003 in Glandorf, Germany. Asexual reproduction by vegetative cuttings was first conducted in February 2003 in Glandorf, Germany.

**Tests and Trials:** Trials for 'Hycativ' were conducted in a polyhouse in spring 2009 at BioFlora Inc. in St. Thomas, Ontario. The trial included 10 plants of each variety. All plants were grown from cuttings rooted April 2008 and transplanted into 15 cm pots in May 2008. Observations and measurements were taken from 10 plants or parts of plants of each variety on May 20, 2009. All colour determinations were made using the 2001 Royal Horticultural Society (RHS) Colour charts.

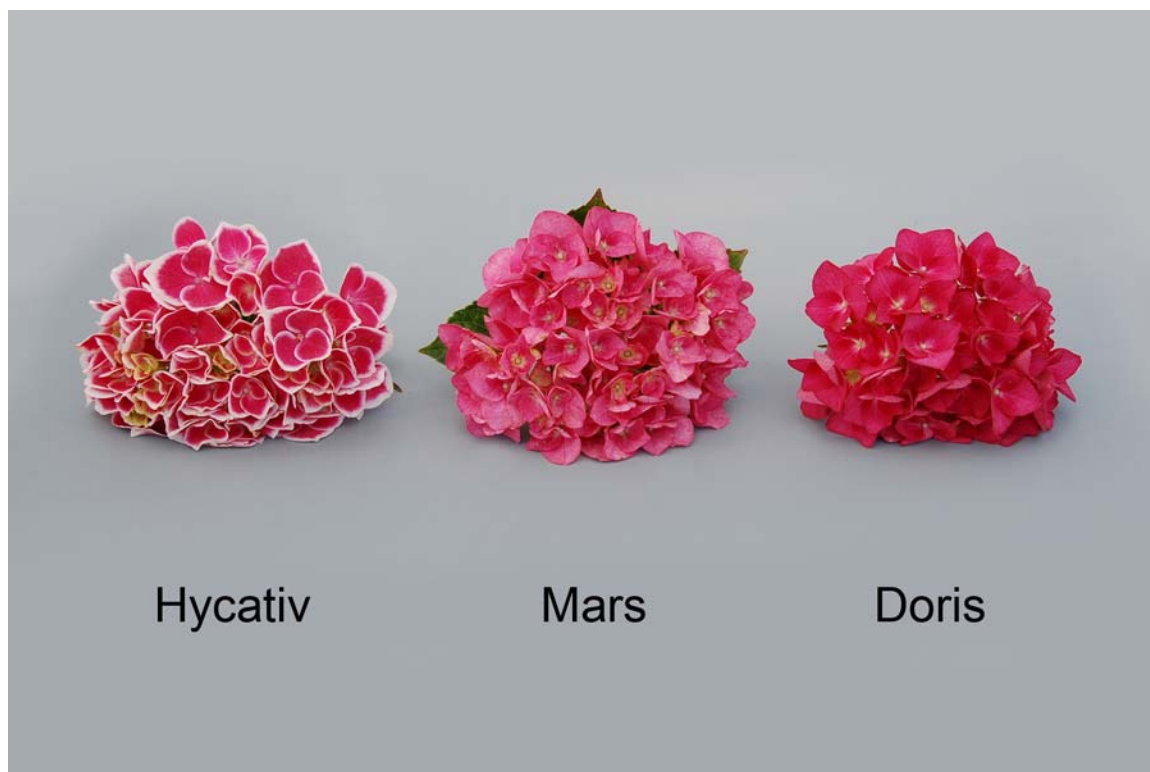
**Comparison table for 'Hycativ'**

	'Hycativ'	'Mars'*	'Doris'*
<i>Plant height (cm)</i>			
mean	23.4	21.4	35.9
std. deviation	2.03	2.20	3.86
<i>Colour of large calyx (RHS)</i>			
upper side	58A with N155D margin	63B with 63C tones and 4D basal spot	darker and redder than 63A aging to 63B-C

\*reference varieties



Hydrangea: 'Hycativ' (left) with reference varieties 'Mars' (centre) and 'Doris' (right)



Hydrangea: 'Hycativ' (left) with reference varieties 'Mars' (centre) and 'Doris' (right)



Hydrangea: 'Hycativ' (left) with reference varieties 'Mars' (centre) and 'Doris' (right)

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