



APPLICATIONS UNDER EXAMINATION

HELIOTROPE

HELIOTROPE
(Heliotropium arborescens)

Proposed denomination: 'Heliobu'
Trade name: Scentropia Dark Blue
Application number: 07-6043
Application date: 2006/11/20 (priority claimed)
Applicant: Syngenta Crop Protection AG, Basel, Switzerland
Agent in Canada: Brenda Cole, BioFlora Inc., St. Thomas, Ontario
Breeder: Anna M.W.P. Houbraken, Syngenta Seeds B.V., Enkhuizen, The Netherlands

Variety used for comparison: 'Nagano'

Summary: 'Heliobu' has a taller and wider plant than 'Nagano'. 'Heliobu' has a bushy-rounded growth habit while 'Nagano' has an upright-bushy growth habit. 'Heliobu' has weak anthocyanin colouration on the peduncle while 'Nagano' has medium to strong anthocyanin. 'Heliobu' has a slightly different colour on the lower side of the corolla than 'Nagano'.

Description:

PLANT: bushy-rounded growth habit, medium degree of branching

STEM: medium green, no anthocyanin colouration, medium pubescence, medium thickness, smooth

LEAF: alternate arrangement, simple, ovate, acute apex, cuneate base, entire margin, medium pubescence on upper and lower side, medium green on upper and lower side

PEDUNCLE: weak anthocyanin colouration, medium pubescence

INFLORESCENCE: cyme, terminal position, erect to semi-erect, medium to dense

COROLLA LOBES: 5, petals partially fused, medium size, salverform, weak undulation of margin, absent to very weak recurvature of margin, sparse pubescence on throat, violet on upper side with white at base, throat orange brown, violet on lower side

Origin and Breeding: 'Heliobu' originated from an open pollination that took place in August 2002 in Enkhuizen, The Netherlands. The female parent was identified as B0473-1 and the pollen came from unidentified *Heliotropium arborescens* plants. The new variety was selected as a single seedling in August 2003, based on criteria for branching habit, semi-compact growth habit, large flower size and heat tolerance. Asexual reproduction by cuttings was first conducted in August 2003 in Enkhuizen, The Netherlands.

Tests and Trials: Trials for 'Heliobu' were conducted during the summer of 2008 in a polyhouse at BioFlora Inc. in St. Thomas, Ontario. There were 15 plants each of the candidate and reference variety. The plants were grown from rooted cuttings which were transplanted into 15 cm pots on April 30, 2008. Observations and measurements were taken from 10 plants on June 16, 2008. All colour determinations were made using the 2001 Royal Horticulture Society (RHS) Colour Chart.

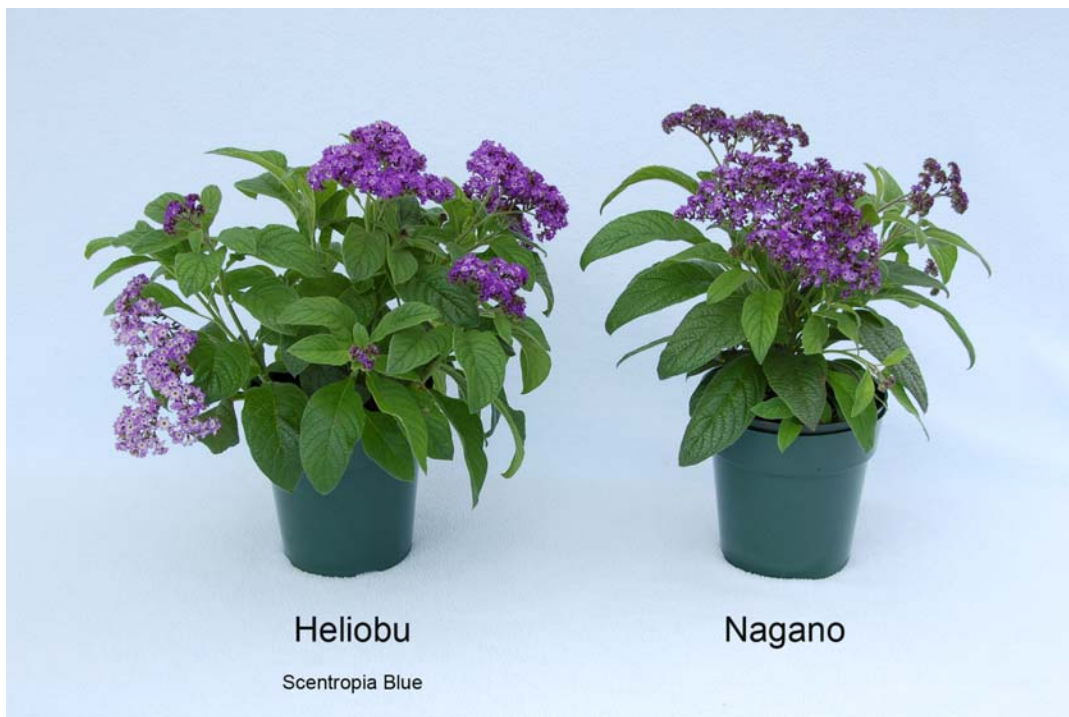
Comparison table for 'Heliobu'

	'Heliobu'	'Nagano'*
<i>Plant height (cm)</i>		
mean	24.9	20.5
std. deviation	1.37	1.58
<i>Plant width (cm)</i>		
mean	36.4	27.9
std. deviation	1.65	2.38

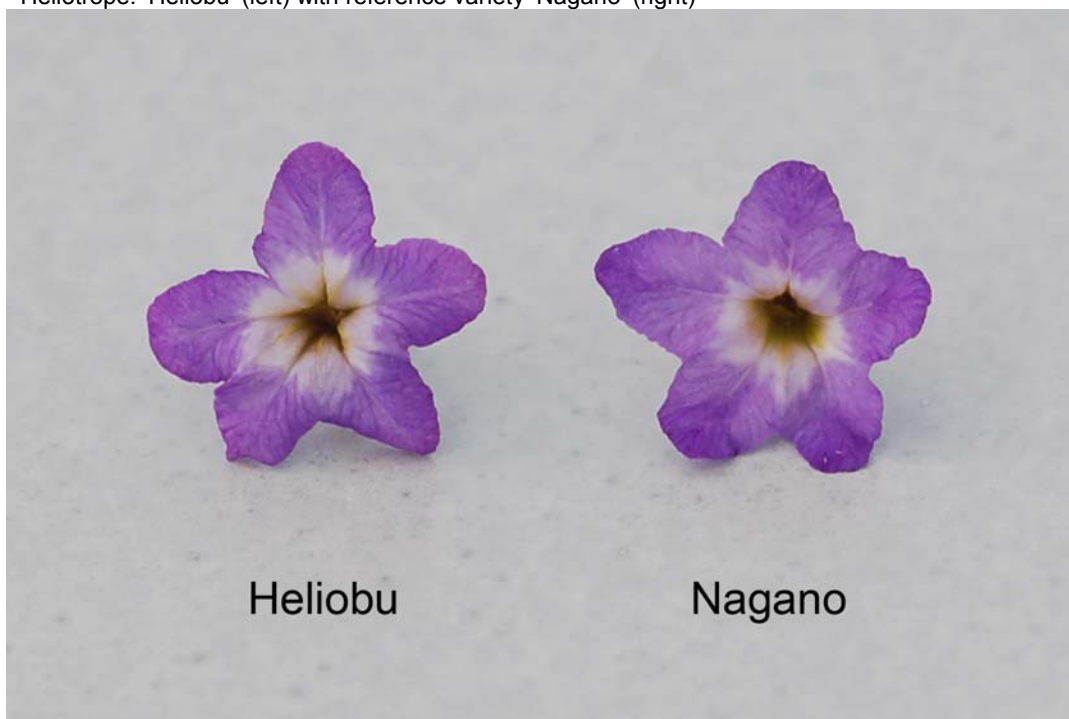
Colour of corolla (RHS)

upper side	N87A, N82A in veins along margin	N87A
lower side	N82C	N87B-C
throat	173B	144A

*reference variety



Heliotrope: 'Heliobu' (left) with reference variety 'Nagano' (right)



Heliotrope: 'Heliobu' (left) with reference variety 'Nagano' (right)



Heliotrope: 'Heliobu' (left) with reference variety 'Nagano' (right)

Proposed denomination:	'Heliosil'
Trade name:	Scentropia Silver
Application number:	06-5657
Application date:	2005/11/25 (priority claimed)
Applicant:	Syngenta Crop Protection AG, Basel, Switzerland
Agent in Canada:	Brenda Cole, BioFlora Inc., St. Thomas, Ontario
Breeder:	Anna M.W.P. Houbraken, Syngenta Seeds B.V., Enkhuizen, The Netherlands

Varieties used for comparison: 'KLEHA07522' and 'Heliovi'

Summary: *'Heliosil' has a less upright growth habit than 'KLEHA07522'. 'Heliosil' has a taller plant height than the reference varieties. 'Heliosil' has a longer peduncle length than 'Heliovi' and shorter peduncle length than 'KLEHA07522'. The upper side of the corolla is white and light blue violet for 'Heliosil' while it is white with a weak violet blush for 'KLEHA07522' and violet for 'Heliovi'.*

Description:

PLANT: bushy-rounded growth habit, medium degree of branching

STEM: light green, no anthocyanin colouration, dense pubescence, medium thickness, smooth

LEAF: alternate arrangement, simple, ovate, acute apex, cuneate base, entire margin, medium pubescence on upper and lower side, light to medium green on upper and lower side

PEDUNCLE: no anthocyanin colouration, medium pubescence

INFLORESCENCE: cyme, terminal position, erect to semi-erect, dense

COROLLA LOBES: 5, petals partially fused, medium size, salverform, weak undulation of margin, absent to very weak recurvature of margin, medium pubescence on throat, light blue violet on upper side with white at base, throat yellow green, light blue violet on lower side

Origin and Breeding: 'Heliosil' originated from a controlled cross made in August 2001, in Enkhuizen, The Netherlands. The female parent was identified as A0260-1 and the pollen came from unidentified *Heliotropium arborescens* plants. The

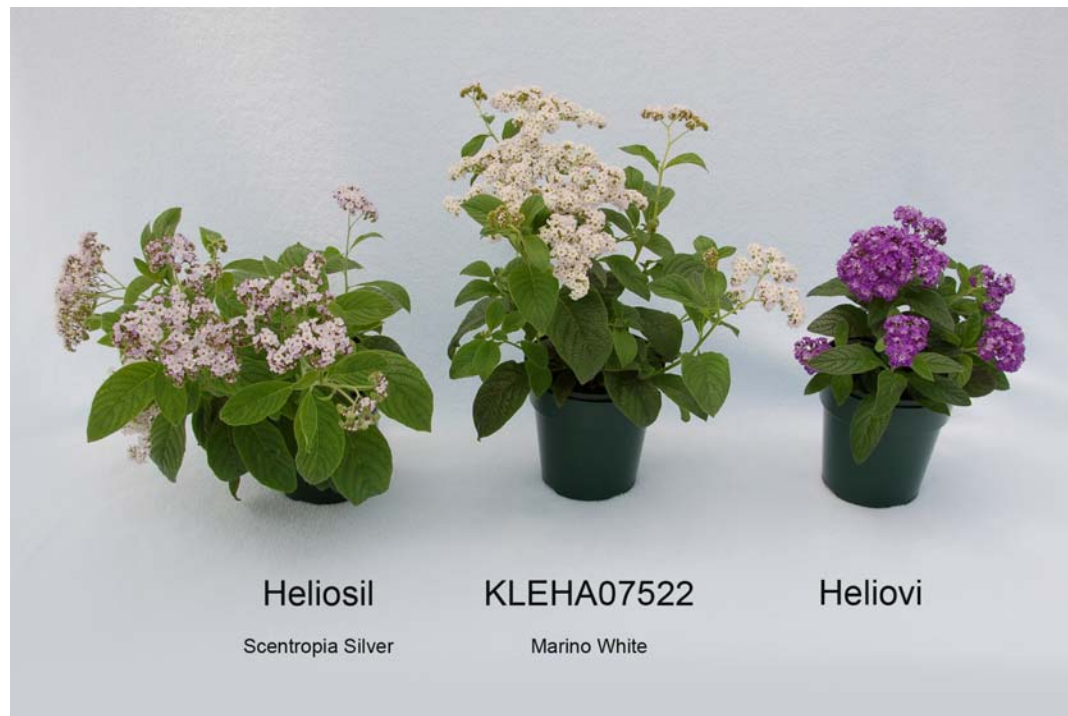
new variety was selected as a single seedling in August 2002, based on criteria for growth and branching habit, flower head size and good heat tolerance. Asexual reproduction by cuttings was first conducted in August 2002 in Enkhuizen, The Netherlands.

Tests and Trials: Trials for ‘Heliosil’ were conducted during the summer of 2008 in a polyhouse at BioFlora Inc. in St. Thomas, Ontario. There were 15 plants each of the candidate and reference variety. The plants were grown from rooted cuttings which were transplanted into 15 cm pots on April 30, 2008. Observations and measurements were taken from 10 plants on June 16, 2008. All colour determinations were made using the 2001 Royal Horticulture Society (RHS) Colour Chart.

Comparison table for ‘Heliosil’

	‘Heliosil’	‘KLEHA07522’*	‘Heliovi’*
<i>Plant height (cm)</i>			
mean	34.1	29.0	19.9
std. deviation	2.02	1.89	2.13
<i>Plant width (cm)</i>			
mean	40.6	38.7	28.0
std. deviation	4.53	2.95	2.67
<i>Inflorescence diameter (cm)</i>			
mean	11.1	16.3	14.0
std. deviation	0.66	1.57	2.03
<i>Corolla colour (RHS)</i>			
upper side	85D	white with weak violet blush	N87A (newly opened), N82C (fully opened)
lower side	85D	white	N87C (newly opened), 76D (fully opened)
throat	1B	1B	144A

*reference varieties



Heliotrope: ‘Heliosil’ (left) with reference varieties ‘KLEHA07522’ (centre) and ‘Heliovi’ (right)



Heliotrope: 'Heliosil' (left) with reference varieties 'KLEHA07522' (centre) and 'Heliovi' (right)



Heliotrope: 'Heliosil' (left) with reference varieties 'KLEHA07522' (centre) and 'Heliovi' (right)

Proposed denomination:	'Heliovi'
Trade name:	Scentropia Blue
Application number:	06-5658
Application date:	2005/11/25 (priority claimed)
Applicant:	Syngenta Crop Protection AG, Basel, Switzerland

Agent in Canada: Brenda Cole, BioFlora Inc., St. Thomas, Ontario
Breeder: Anna M.W.P. Houbraken, Syngenta Seeds B.V., Enkhuizen, The Netherlands

Variety used for comparison: 'Nagano'

Summary: 'Heliovi' has a smaller leaf blade than 'Nagano'. 'Heliovi' differs slightly from 'Nagano' in the colour on the upper and lower side of the fully opened corolla.

Description:

PLANT: bushy-rounded growth habit, low to medium degree of branching
 STEM: medium green, weak anthocyanin colouration, dense pubescence, thin, smooth

LEAF: alternate arrangement, simple, ovate to lanceolate, acute apex, cuneate base, entire margin, medium pubescence on upper side, medium to strong pubescence at midrib on lower side, medium green on upper and lower side

PEDUNCLE: medium anthocyanin colouration, medium pubescence

INFLORESCENCE: cyme, terminal position, erect to semi-erect, dense

COROLLA LOBES: 5, petals partially fused, medium size, salverform, weak undulation of margin, absent to very weak recurvature of margin, sparse pubescence on throat, violet on upper side with white at base, throat light green (RHS 144A), violet on lower side when first open, light blue violet on lower side when fully open

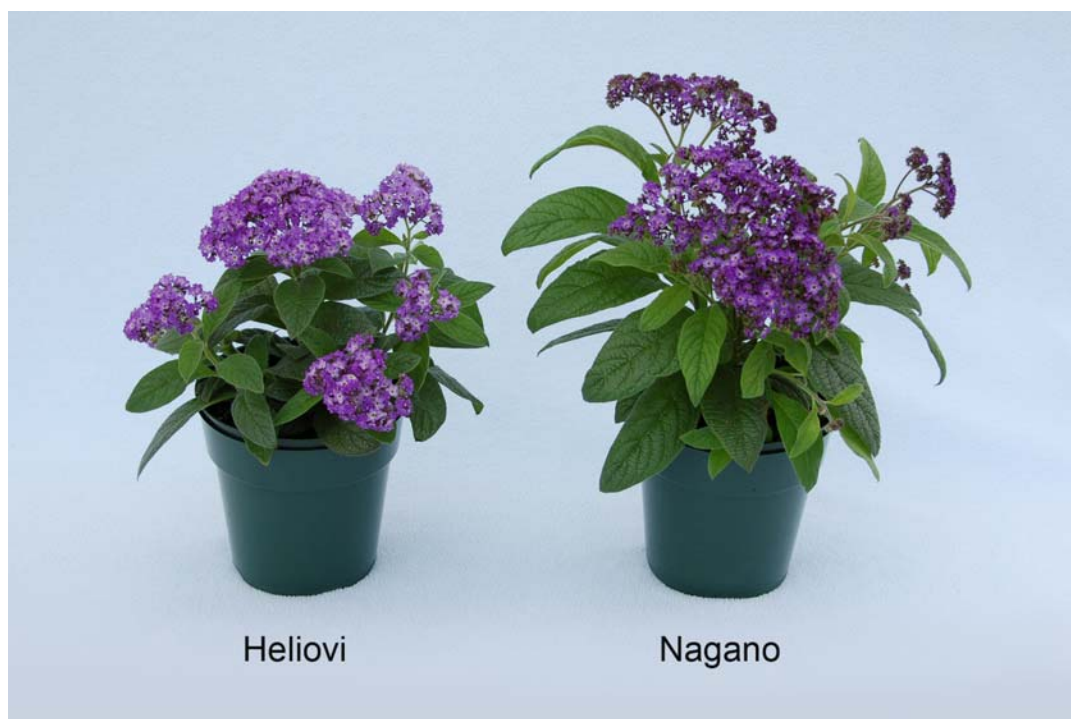
Origin and Breeding: 'Heliovi' originated from a controlled cross made in August 2001, in Enkhuizen, The Netherlands. The female parent was identified as B0213-3 and the pollen came from unidentified *Heliotropium arborescens* plants. The new variety was selected as a single seedling in August 2002, based on criteria for growth and branching habit, flower head size and good heat tolerance. Asexual reproduction by cuttings was first conducted in August 2002 in Enkhuizen, The Netherlands.

Tests and Trials: Trials for 'Heliovi' were conducted during the summer of 2008 in a polyhouse at BioFlora Inc. in St. Thomas, Ontario. There were 15 plants each of the candidate and reference variety. The plants were grown from rooted cuttings which were transplanted into 15 cm pots on April 30, 2008. Observations and measurements were taken from 10 plants on June 16, 2008. All colour determinations were made using the 2001 Royal Horticulture Society (RHS) Colour Chart.

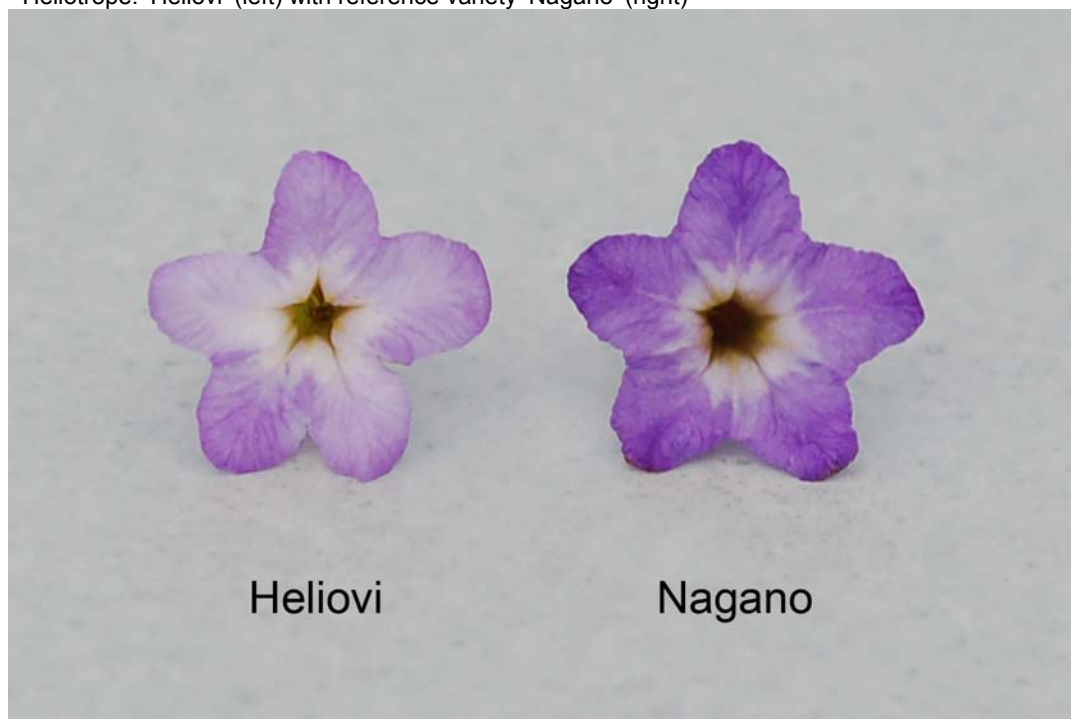
Comparison table for 'Heliovi'

	'Heliovi'	'Nagano'*
<i>Leaf blade length (cm)</i>		
mean	7.1	8.9
std. deviation	0.41	0.90
<i>Leaf blade width (cm)</i>		
mean	2.9	3.5
std. deviation	0.30	0.29
<i>Corolla colour (RHS)</i>		
upper side	N87A (newly opened), N82C (fully opened)	N87A
lower side	N87C (newly opened), 76D (fully opened)	N87B-C

*reference variety



Heliotrope: 'Heliovi' (left) with reference variety 'Nagano' (right)



Heliotrope: 'Heliovi' (left) with reference variety 'Nagano' (right)