



APPLICATIONS UNDER EXAMINATION

CONEFLOWER

**CONEFLOWER**  
(*Echinacea*)

**Proposed denomination:** 'Hot Summer'  
**Application number:** 09-6705  
**Application date:** 2009/08/05  
**Applicant:** Marco van Noort, Warmond, The Netherlands  
**Agent in Canada:** BioFlora Inc., St. Thomas, Ontario  
**Breeder:** Marco van Noort, Warmond, The Netherlands

**Variety used for comparison:** 'Tomato Soup'

**Summary:** *The plants of 'Hot Summer' are taller than those of 'Tomato Soup'. The leaves of 'Hot Summer' are larger than those of 'Tomato Soup'. The upper and lower sides of the ray florets of 'Hot Summer' differ in colour from those of 'Tomato Soup'. The discs of 'Hot Summer' are larger than those of 'Tomato Soup'.*

**Description:**

PLANT: upright growth habit, basal branches with lateral branching  
 STEM: thick, round, light green, dense pubescence, no anthocyanin colouration

LEAF: alternate arrangement, ovate, acute apex, attenuate base, entire margin, weak undulation of margin, dark green on upper side, strong pubescence, no glossiness, no anthocyanin colouration on upper side, petiole present

PEDUNCLE: no waviness

CALYX: light green, reflexing of sepals present

FLOWER: single type

RAY FLORET: downward attitude of longitudinal axis, weak reflexing of tip, emarginate and cleft apex, when newly opened orange red to orange (RHS N25A-C) with orange brown (RHS 34B) at apex on upper side, when fully opened dark purple red (RHS N34A) with red to orange brown (RHS 34A-B) towards apex on upper side, when mature dark purple red (RHS 53B) with dark pink red to orange brown (RHS N34C-D) towards apex on upper side, lower side orange pink (RHS 27A) streaked with purple (RHS 60C) when fully opened

DISC FLORET: dark purple red (RHS 53A)

**Origin and Breeding:** 'Hot Summer' originated as a product of a planned breeding and selection program conducted by the breeder Marco van Noort in Warmond, The Netherlands. The Echinacea variety was discovered as a naturally occurring whole plant mutation of a plant of unknown origin in the breeders' field trial in Warmond, in the summer of 2007. The origin is unclear as the field trial included numerous cultivars and species of Echinacea. The combined characteristics of 'Hot Summer' suggest that the parentage includes both *Echinacea paradoxa* and *Echinacea purpurea*. The new variety was selected in the summer of 2007 based on flower colour, branching habit, growth habit and disease tolerance. Asexual reproduction of 'Hot Summer' by in vitro propagation was first conducted in Rijswijk, The Netherlands in 2008.

**Tests and Trials:** Trials for 'Hot Summer' were conducted in a polyhouse during the summer of 2010, in St. Thomas, Ontario. The trial included a total of 15 plants each of the candidate and reference varieties. All plants were grown from rooted cuttings planted into 15 cm pots on May 31, 2010. Observations and measurements were taken from 10 plants of each variety on July 26, 2010. All colour determinations were made using the 2007 Royal Horticultural Society (RHS) Colour Chart.

**Comparison table for 'Hot Summer'**

	'Hot Summer'	'Tomato Soup**'
<i>Plant height (cm)</i>		
mean	73.8	51.8
std. deviation	5.55	10.99

<i>Leaf length (cm)</i>		
mean	21.7	16.4
std. deviation	3.82	2.31
<i>Leaf width (cm)</i>		
mean	6.0	4.2
std. deviation	0.73	0.37
<i>Colour of upper side of ray floret (RHS)</i>		
newly opened	N25A-C with 34B at apex	44A-B
fully opened	N34A with 34A-B towards apex	42A with N30A undertones
mature (after dehiscence)	53B with N34C-D towards apex	34A-B with close to 31A at apex
<i>Colour of lower side of ray floret (RHS)</i>		
fully opened	27A streaked with lighter than 60C	63C streaked with 60A
<i>Disc diameter (cm)</i>		
mean	4.2	2.8
std. deviation	0.60	0.31
*reference variety		



Coneflower: 'Hot Summer' (left) with reference variety 'Tomato Soup' (right)



Coneflower: 'Hot Summer' (left) with reference variety 'Tomato Soup' (right)

**CONEFLOWER**  
(*Echinacea purpurea*)

**Proposed denomination:** 'All that Jazz'  
**Application number:** 07-6128  
**Application date:** 2007/12/27  
**Applicant:** Walters Gardens, Inc., Zeeland, Michigan, United States of America  
**Agent in Canada:** Variety Rights Management, Oxford Station, Ontario  
**Breeder:** Kevin A. Hurd, Walters Gardens Inc., Caledonia, Michigan, United States of America

**Variety used for comparison:** 'Ruby Giant'

**Summary:** *The plants of 'All that Jazz' are taller than those of 'Ruby Giant'. The flowers of 'All that Jazz' are smaller than those of 'Ruby Giant'. The ray florets of 'All that Jazz' are spatulate whereas those of 'Ruby Giant' are elliptic to ligulate. The upper side of the ray florets of 'All that Jazz' are blue pink to light blue pink while those of 'Ruby Giant' are purple to blue pink.*

**Description:**

**PLANT:** vegetatively propagated, perennial type, narrow upright to upright-bushy growth habit, sparse to medium branching  
**STEM:** dark green, medium to dense pubescence

**LEAF:** alternate arrangement, simple type, ovate to lanceolate, acute apex, attenuate base, serrate margin, dark green on upper side, no variegation, no petiole

**FLOWERING:** once, mid season, medium to long period

**FLOWER:** head inflorescence type, terminal and axillary position, erect attitude, disc present

**RAY FLORET:** medium number, spatulate, straight along longitudinal axis of majority, blue pink to light blue pink (RHS 70C-D) on upper side

**DISC FLORET:** orange brown (RHS N172B-C)

**Origin and Breeding:** ‘All that Jazz’ originated from a seedling cross between the *Echinacea* variety ‘Sunrise’ and 04-02-01 at Walters Gardens Inc. in Zeeland, Michigan, United States in October 2005. The variety was first observed in the summer of 2006.

**Tests and Trials:** Trials for ‘All that Jazz’ were conducted at Variety Rights Management in Oxford Station, Ontario during the summer of 2010. Fifteen plants of each variety were grown in 15 cm pots in a polyhouse. Plants were spaced approximately 60 cm apart. Colour determinations were made using the 2001 Royal Horticultural Society (RHS) Colour Chart.

**Comparison table for ‘All that Jazz’**

	‘All that Jazz’	‘Ruby Giant’*
<i>Plant height (cm)</i>		
mean	102.25	87.06
std. deviation	7.72	5.94
<i>Flower diameter (cm)</i>		
mean	8.24	10.62
std. deviation	1.49	0.98
<i>Colour of ray floret (RHS)</i>		
upper side	70C-D	70B-C

\*reference variety



Coneflower: ‘All that Jazz’ (left) with reference variety ‘Ruby Giant’ (right)



Coneflower: 'All that Jazz' (left) with reference variety 'Ruby Giant' (right)