



APPLICATIONS UNDER EXAMINATION

NINEBARK

NINEBARK
(Physocarpus opulifolius)

Proposed denomination: 'N5'
Trade name: Panther
Application number: 17-9332
Application date: 2017/11/20
Applicant: Gijsbertus Verhoef, Hazerswoude, Netherlands
Agent in Canada: BioFlora Inc., St. Thomas, Ontario
Breeder: Gijsbertus Verhoef, Hazerswoude, Netherlands

Variety used for comparison: 'Burgundy Candles'

Summary: *The stem of 'N5' is thin to medium thickness whereas the stem of 'Burgundy Candles' is thick. The leaf blades of 'N5' are smaller than those of 'Burgundy Candles'. The leaf blades of 'N5' have weak rugosity whereas those of 'Burgundy Candles' have a medium degree of rugosity. The longest new stem for 'N5' is shorter than that of 'Burgundy Candles'.*

Description:

PLANT: shrub type, obovoid and mounding shape, upright to bushy growth habit, medium branching density
 CURRENT YEAR'S STEM: red brown, thin to medium thickness, absent or very sparse pubescence, round in cross-section, smooth bark texture, absent or very weak glaucosity, absent or very few lenticels

LEAF: simple type, alternate arrangement along stem

LEAF BLADE: ovate, acute apex, cordate to truncate base, dentate and serrate margin, lobed, weak rugosity, medium undulation of margin

LEAF BLADE (UPPER SIDE): very sparse pubescence, dark brown (darker than RHS 200A) mid-season, no variegation

LEAF BLADE (LOWER SIDE): absent or very sparse pubescence, medium brown green (closest to RHS 147B) to dark brown green (RHS 148A) mid-season, anthocyanin colouration on veins ranging from absent or very weak to weak

PETIOLE: present, strong intensity of anthocyanin colouration

Origin and Breeding: 'N5' originated from an open pollinated cross conducted by the breeder in the summer of 2015, in Hazerswoude, Netherlands. The cross occurred between the female parent variety 'Diabolo' and an unknown male parent. The new variety was selected as a simple plant from the resultant progeny of the cross in July 2007 based on growth habit, summer foliage colour and resistance to powdery mildew. Asexual reproduction of 'N5' was first conducted by softwood cuttings in June 2008 in Hazerswoude, Netherlands.

Tests and Trials: The comparative trial for 'N5' was conducted in an outdoor container trial at BioFlora Inc. in St. Thomas, Ontario during the summer of 2021. The trial included 12 shrubs each of the candidate and reference variety. All shrubs were grown from rooted cuttings and transplanted into containers in the summer of 2020. The trial was arranged outdoors in rows with 1 meter spacing between plants. Observations and measurements were taken from 10 plants, or parts of plants, of each variety on June 8, 2021. All colour determinations were made using the 2015 Royal Horticultural Society (RHS) Colour Chart.

Comparison table for 'N5'

| | 'N5' | 'Burgundy Candles'* |
|-------------------------------|------|---------------------|
| <i>Leaf blade length (cm)</i> | | |
| mean | 6.2 | 6.9 |
| std. deviation | 0.53 | 0.48 |
| <i>Leaf blade width (cm)</i> | | |
| mean | 5.4 | 6.4 |
| std. deviation | 0.71 | 0.41 |

Length of longest new stem (mm)

| | | |
|----------------|------|-------|
| mean | 35.2 | 65.2 |
| std. deviation | 6.21 | 11.87 |

*reference variety



Ninebark: 'N5' (left) with reference variety 'Burgundy Candles' (right)

| | |
|-------------------------------|--|
| Proposed denomination: | 'SMNPMS' |
| Trade name: | Summer Wine Black |
| Application number: | 18-9452 |
| Application date: | 2018/05/02 |
| Applicant: | Spring Meadow Nursery, Inc., Grand Haven, Michigan, United States of America |
| Agent in Canada: | BioFlora Inc., St. Thomas, Ontario |
| Breeder: | Timothy D. Wood, Spring Lake, Michigan, United States of America |

Varieties used for comparison: 'N5' (Panther) and 'Burgundy Candles'

Summary: *The natural height of the plants of 'SMNPMS' is taller than that of both reference varieties. The stem of 'SMNPMS' is of medium thickness whereas that of 'Burgundy Candles' is thick. The leaf blade of 'SMNPMS' is smaller than that of 'Burgundy Candles'. The petiole of 'SMNPMS' is thinner than that of both reference varieties. The longest new stem of 'SMNPMS' is longer than that of 'N5' and has more nodes than both reference varieties. The longest new stem of 'SMNPMS' is thicker than that of 'Burgundy Candles'.*

Description:

PLANT: shrub type, broad obovoid shape, upright to bushy growth habit, dense branching

CURRENT YEAR'S STEM: red brown, medium thickness, absent or very sparse pubescence, round in cross-section, smooth bark texture, absent or very weak glaucosity, absent or very few lenticels

LEAF: simple type, alternate arrangement along stem

LEAF BLADE: ovate, acute apex, cordate to truncate base, dentate and serrate margin, lobed, medium rugosity, medium undulation of margin

LEAF BLADE (UPPER SIDE): absent or very sparse pubescence, black (more red purple than 202A) mid-season, no variegation

LEAF BLADE (LOWER SIDE): absent or very sparse pubescence, medium brown green (closest to RHS 147B) mid-season, anthocyanin colouration on veins ranging from absent or very weak to weak

PETIOLE: present, medium intensity of anthocyanin colouration

Origin and Breeding: ‘SMNPMS’ originated from an open pollinated cross conducted by the breeder, in 2008, in Grand Haven, Michigan, USA. The cross occurred between the female parent variety ‘Seward’ and an unknown male parent. The new variety was selected in 2012 based on plant growth habit, leaf size and leaf colour. Asexual reproduction of ‘SMNPMS’ was first conducted by softwood cuttings in Grand Haven, Michigan, USA in 2012.

Tests and Trials: The comparative trial for ‘SMNPMS’ was conducted in an outdoor container trial at BioFlora in St. Thomas, Ontario during the summer of 2021. The trial included 12 shrubs each of the candidate and reference varieties. All shrubs were grown from rooted cuttings and transplanted into containers in the summer of 2020. The trial was arranged outdoors in rows with 1 meter spacing between plants. Observations and measurements were taken from 10 plants, or parts of plants, of each variety on June 8, 2021. All colour determinations were made using the 2015 Royal Horticultural Society (RHS) Colour Chart.

Comparison table for ‘SMNPMS’

| | ‘SMNPMS’ | ‘N5’* | ‘Burgundy Candles’* |
|--|----------|-------|---------------------|
| <i>Natural plant height (cm)</i> | | | |
| mean | 86.1 | 72.3 | 76.2 |
| std. deviation | 9.96 | 8.30 | 5.91 |
| <i>Leaf blade length (cm)</i> | | | |
| mean | 6.1 | 6.2 | 6.9 |
| std. deviation | 0.28 | 0.53 | 0.48 |
| <i>Leaf blade width (cm)</i> | | | |
| mean | 5.5 | 5.4 | 6.4 |
| std. deviation | 0.25 | 0.71 | 0.41 |
| <i>Petiole thickness (mm)</i> | | | |
| mean | 1.1 | 1.4 | 1.8 |
| std. deviation | 0.10 | 0.20 | 0.17 |
| <i>Length of longest new stem (mm)</i> | | | |
| mean | 58.7 | 35.2 | 65.2 |
| std. deviation | 7.65 | 6.21 | 11.87 |
| <i>Number of nodes on longest new stem</i> | | | |
| mean | 46.2 | 28.4 | 31.7 |
| std. deviation | 3.60 | 4.50 | 8.01 |
| <i>Thickness of longest new stem (mm)</i> | | | |
| mean | 5.3 | 4.4 | 4.1 |
| std. deviation | 0.39 | 0.99 | 0.46 |

*reference varieties



SMNPMS
Summer Wine Black

N5
Panther

Burgundy Candles

Ninebark: 'SMNPMS' (left) with reference varieties 'N5' (centre) and 'Burgundy Candles' (right)
