



US00PP33462P2

(12) **United States Plant Patent**
Moucheboeuf

(10) **Patent No.:** **US PP33,462 P2**
(45) **Date of Patent:** **Sep. 7, 2021**

(54) **DIANTHUS PLANT NAMED ‘WP20 NEO01’**

(50) Latin Name: *Dianthus x hybrida*
Varietal Denomination: **WP20 NEO01**

(71) Applicant: **Plant Genetics International, Ltd.,**
Exeter (GB)

(72) Inventor: **Laetitia Moucheboeuf,** Dawlish (GB)

(73) Assignee: **PLANT GENETICS**
INTERNATIONAL, LTD., Exeter
(GB)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **17/120,484**

(22) Filed: **Dec. 14, 2020**

(51) **Int. Cl.**
A01H 6/30 (2018.01)
A01H 5/02 (2018.01)

(52) **U.S. Cl.**
USPC **Plt./273**

(58) **Field of Classification Search**
USPC Plt./282
See application file for complete search history.

Primary Examiner — Annette H Para

(74) *Attorney, Agent, or Firm* — Weatherly IP Solutions,
LLC; James M. Weatherly

(57) **ABSTRACT**

A new cultivar of *Dianthus* plant named ‘WP20 NEO01’ that
is characterized by a compact mounding habit with glaucous
blue-green foliage, single bright magenta flowers with a
dark purple pilose band, blooming from May through Octo-
ber, suitable for use as a flowering plant in pots and
containers, is disclosed.

2 Drawing Sheets

1

Genus and species: *Dianthus x hybrida*.
Variety denomination: ‘WP20 NEO01’.

BACKGROUND OF THE NEW PLANT

The present invention relates to a new and distinct cultivar
of hardy *Dianthus*, commonly known as Alpine Pink, which
is grown for use as a flowering plant for pots and containers
and for planting in the garden and landscape. The new
cultivar is known botanically as *Dianthus x hybrida*, and
will be referred to hereinafter by the cultivar name ‘WP20
NEO01’.

‘WP20 NEO01’ is a complex hybrid plant that is the
product of a long-term breeding program conducted in a
cultivated area of Ashcombe Road, Dawlish, Devon, United
Kingdom. ‘WP20 NEO01’ was selected in 2016 for its single
vibrant magenta flowers and glaucous blue-green foliage.

‘WP20 NEO01’ arose and was selected as a seedling
which resulted from the controlled pollination of two prior
selections of *Dianthus*. The male parent is *Dianthus* code
name ‘13.097’ (unpatented and unreleased) and the female
parent is *Dianthus* code name ‘Alcione’ (unpatented and
unreleased). The male parent and female parent had both
been grown within the inventor’s stock of breeding lines.

Asexual reproduction of ‘WP20 NEO01’ was first accom-
plished in 2016 in a cultivated area of Ashcombe, Devon,
United Kingdom using the propagation method of shoot
cuttings. ‘WP20 NEO01’ has been determined to be stable
and reproduces true to type in successive generations of
asexual propagation.

SUMMARY

The following traits have been repeatedly observed and
represent the characteristics of the new *Dianthus* cultivar
‘WP20 NEO01’. ‘WP20 NEO01’ has not been tested under
all possible conditions and phenotypic differences may be

2

observed with variations in environmental, climatic and
cultural conditions, however, without any variance in geno-
type.

1. ‘WP20 NEO01’ exhibits a compact mounding habit.
2. ‘WP20 NEO01’ bears single vibrant magenta flowers.
3. The petals of ‘WP20 NEO01’ are flat.
4. ‘WP20 NEO01’ blooms from May through October.
5. The flowers of ‘WP20 NEO01’ exhibit a very slight
clove-like fragrance.
6. ‘WP20 NEO01’ exhibits glaucous blue-green foliage.
7. At maturity, the height of the foliage mound of ‘WP20
NEO01’ is 18 cm, and the width is 30 cm.
8. ‘WP20 NEO01’ is perennial and is hardy at least to
minus 15° Centigrade.
9. ‘WP20 NEO01’ is suitable for use as a flowering plant
in pots and containers, and for use as a cut flower and
in bouquets.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying color photographs illustrate the over-
all appearance of the new *Dianthus* variety ‘WP20 NEO01’
showing colors as true as it is reasonably possible to obtain
in colored reproductions of this type. Colors in the photo-
graphs may differ from the color values cited in the detailed
botanical description, which accurately describe the actual
colors of the new variety ‘WP20 NEO01’.

FIG. 1 depicts an entire flowering plant of ‘WP20
NEO01’.

FIG. 2 depicts a close-up view of the flower of ‘WP20
NEO01’.

Photographs were taken in June 2020 in Dawlish, Devon,
United Kingdom of and from 10 months old plants which
have been grown outdoors in 3-liter containers. No chemi-
cals were used to treat the plants. All photographs were
made using conventional techniques and although colors

may appear different from actual colors due to light reflectance, they are as accurate as possible by conventional photography.

BOTANICAL DESCRIPTION OF THE PLANT

The following is a detailed description of the new cultivar 'WP20 NEO01'. Data was collected from plants grown in 3-liter containers under an unheated glasshouse in Ashcombe, Dawlish, United Kingdom. The color determinations are in accordance with the sixth edition (2015) of The Royal Horticultural Society Colour Chart of The Royal Horticultural Society, London, England, except where general color terms of ordinary dictionary significance are used. No chemicals were used to treat the plants. Growing conditions are typical to other *Dianthus*.

Botanical classification: *Dianthus*.

Variety.—'WP20 NEO01'.

Species.—*X hybrida*.

Common names.—Hybrid *Dianthus*, Alpine Pink.

Commercial classification.—Hardy perennial.

Use.—Ornamental plant for pots and containers.

Parentage: 'WP20 NEO01' is a hybrid plant that resulted from the controlled cross-pollination between two *Dianthus* x *hybrida* plants.

Female parent plant.—'Alcione' experimental *Dianthus* plant (unpatented).

Male parent plant.—'13.097' experimental *Dianthus* plant (unpatented).

Plant description:

Bloom period.—May to October.

Plant habit.—Compact mounding habit.

Plant height.—18 cm in overall height, including flower canopy.

Plant width.—30 cm in width.

Plant hardiness.—Hardy to minus 15° Centigrade.

Type.—Perennial.

Root system.—Fibrous.

Propagation.—Propagation is accomplished using shoot cuttings.

Cultural requirements.—Plant in full sun, well-drained and moderately fertile soil and keep well fertilized and watered.

Time required to produce a rooted cutting.—5 weeks are needed to produce a rooted cutting.

Temperature recommended for cuttings to produce roots.—The air temperature needed is a minimum of 15° Centigrade air temperature and base heat of 21° Centigrade.

Crop time.—6 to 9 months is needed to produce a finished 3-litre container size from a well-rooted cutting.

Stem:

Shape.—Cylindrical, solid.

Dimensions.—4 to 5 cm in length, 2 to 3 mm diameter.

Surface.—Glabrous and glaucous.

Color.—145B, 145C and 145D (in the sheathing zone). *Branching*.—Numerous shoots from the axils of the lower leaves.

Internode length.—1 to 2 mm between nodes (before extension of peduncle).

Node dimensions.—1 mm in diameter and 1 mm in length.

Leaf:

Type.—Evergreen.

Dimensions.—4 cm in length, 3 mm in width.

Color adaxial surface.—N189B.

Color abaxial surface.—N189C.

Shape.—Linear.

Division.—Simple.

Apex.—Acute.

Base.—Decurrent.

Venation.—Absent on the adaxial surface and only one central vein visible on the abaxial surface.

Margins.—Entire.

Attachment.—Sheathing.

Arrangement.—Opposite and spiraling up stem.

Surfaces (adaxial and abaxial).—Glaucous.

Fragrance.—Absent.

Flowers:

Inflorescence.—Simple cyme.

Type.—Single, polypetalous.

Number.—1 to 2 per stem.

Dimensions (including calyx).—22 mm in length and 33 mm in diameter.

Shape.—Circular.

Lastingness.—10 days at 20° Celsius on the plant; 8 to 10 days off the plant.

Fragrance.—Slight, clove-like.

Flowering period.—May to October.

Peduncle:

Shape.—Cylindrical, solid.

Dimensions.—13 cm in length, 2 mm in diameter.

Surface.—Glabrous, waxy.

Strength.—Strong, rigid.

Color.—N138A.

Bud:

Shape.—Cylindrical.

Color.—N138A to N138B on apical half and 144A to 144B on basal half (below the bracts).

Anthocyanin.—Absent.

Dimensions.—15 mm in length and 4 mm in width.

Petals:

Corolla.—Upper and lower part of corolla is flat.

Petal arrangement.—Persistent, apopetalous and overlapping.

Margin.—Serrate.

Indentations.—Up to 3 mm deep.

Texture.—Soft.

Type.—Single.

Number of petals.—5.

Dimensions.—34 mm in length, 18 mm in width.

Petal shape.—Fan shape.

Petal surface.—Glabrous and (in the band only) pilose, with barely visible short fine white hairs (NN155D) and very short purple hairs (71A) too short to measure.

Petal apex.—Fan shaped, serrate.

Petal base.—Strap shaped, tapering towards base.

Color pattern.—Blade is magenta, with dark purple and magenta mottled band.

Petal color (adaxial surface).—Ground color of blade: NN78C. Color of band: Mottled NN78C and 71A. Band width: 5 mm. Color of middle of strap: 145C. Color of base of strap: 145D.

Petal color (abaxial surface).—Ground color of blade: 75A and 76C towards the strap. Color of middle of strap: 145C. Color of base of strap: 145D.

Calyx:

Dimensions.—16 mm in length and 5 mm in width.

Shape.—Cylindrical and straight.

Sepals.—5, fused up to 4 mm below the apex.

Sepal dimensions.—17 mm in length and 3 mm in width.

Apex.—Acute.

Base.—Truncate.

Color of sepals, outer surface.—N138B to N138C on apical half and 144A to 144B on basal half (below the bracts).

Color of sepals, inner surface.—138A on the apical half and 138B on the basal half.

Anthocyanin.—Absent.

Splitting.—Not observed.

Epicalyx:

Number of bracts.—1 pair of 2.

Bracts shape.—Medium acuminate.

Bracts dimensions.—8 mm in length and 4 mm in width.

Bracts color.—N138A, N138B, 139C and 139D are all present.

Anthocyanin.—Absent.

Number of bracteoles.—1 pair of 2.

Bracteoles shape.—Medium acuminate.

Bracteoles dimensions.—7 mm in length and 6 mm in width.

Bracteoles color.—N138A, N138B, 139C and 139D are all present.

Bracteoles anthocyanin.—Absent.

Reproductive organs:

Stamen number.—10, malformed, stunted.

Stamen dimensions.—Undeveloped, length approximately 5 mm.

Color of filaments.—Whiter than NN155A.

Anther number.—10.

Anther dimensions, color, attachment.—Undeveloped, not observed.

Pollen.—None observed.

Style number.—2.

Style shape.—Cylindrical, shoulder absent.

Color of style.—N81A except base, white (whiter than NN155D).

Style dimensions.—7 mm in length and 1 mm in width.

Stigma dimensions.—10 mm as linear extension to style, 1.0-1.5 mm in diameter, fimbriated, protrudes approximately 5 mm above petal plane at maturity.

Stigma number.—One on each style.

Stigma shape.—Linear, as extension to style, strongly recurving when mature.

Stigma color.—N81A.

Ovary position.—Superior.

Ovary dimensions.—8 mm in length and 3 mm in diameter.

Ovary shape.—Spindle.

Ovary surface and texture.—Smooth.

Ovary color.—145B at the uppermost surface, becoming paler 145C at the lowest surface.

Seed:

Color.—202A.

Length.—4 mm.

Diameter.—3 mm.

Shape.—Oval and flattened.

Surface.—Crinkled.

Number.—Varies, up to 10 per pod.

Diseases and pests: Susceptible to known *Dianthus* pests and disease but no other susceptibilities to pests or disease are known.

COMPARISON WITH PARENTAL LINE AND KNOWN VARIETY

‘WP20 NEO01’ is distinguishable from the male parent as follows. The flower color of ‘13.097’ is light to medium pink with a medium pink pilose band. The foliage and habit of ‘13.097’ is open and loose when compared with ‘WP20 NEO01’.

‘WP20 NEO01’ is distinguishable from the female parent as follows. The female parent ‘Alcione’ bears single magenta flowers, identical in color to ‘WP20 NEO01’. However, the band of ‘Alcione’ flowers is star-shaped, whereas the band of ‘WP20 NEO01’ flowers is circular. In addition, plants of ‘Alcione’ bear far fewer flowers than plants of ‘WP20 NEO01’.

The variety of *Dianthus* considered to most closely resemble ‘WP20 NEO01’ is *Dianthus* Plant Named ‘Neon Star’ (U.S. Plant Pat. No. 14,549). In comparison with ‘Neon Star’, ‘WP20 NEO01’ bears single magenta flowers with a prominent mottled purple and magenta band whereas ‘Neon Star’ exhibits little or no banding. The petal margins of ‘WP20 NEO01’ are less deeply serrated than the petal margins of ‘Neon Star’. Plants of ‘WP20 NEO01’ are slightly more compact and bear more flowers than plants of ‘Neon Star’.

I claim:

1. A new and distinct cultivar of *Dianthus* plant named ‘WP20 NEO01’ as described and illustrated herein.

* * * * *



FIG. 1



FIG. 2