



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

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(54) **PENTAS PLANT NAMED ‘NAKPEN005’**

(50) Latin Name: *Pentas lanceolata*  
Varietal Denomination: **NAKPEN005**

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(57) **ABSTRACT**

A new *Pentas* plant particularly distinguished by rose  
flowers, a large flower cluster size, upright form, and a com-  
pact and branching growth habit is disclosed.

**1 Drawing Sheet**

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Genus and species: *Pentas lanceolata*.  
Variety denomination: ‘NAKPEN005’.

**BACKGROUND OF THE NEW PLANT**

The present invention comprises a new and distinct culti-  
var of *Pentas*, botanically known as *Pentas lanceolata*, and  
hereinafter referred to by the cultivar name ‘NAKPEN005’.  
The new cultivar originated from a hybridization made in  
1995 in Fujisawa, Japan. An initial cross was made between  
a commercial female *Pentas* plant designated ‘New Look  
Red’ (unpatented) having red flowers, a half-domed shaped  
flowers cluster and a long flowering period, and a commer-  
cial male *Pentas* plant designated ‘New Look Rose’  
(unpatented) having dark pink flowers, large flower clusters,  
a long flowering period and a branching growth habit. The  
F<sub>1</sub> seeds produced by the hybridization were sown in a  
greenhouse in 1996 and later transplanted to an outdoor trial.  
The F<sub>1</sub> plants were evaluated and selected based on compact  
growth habit, branching, and large flower clusters. The F<sub>2</sub>  
generation seed was sown in 1997, the F<sub>3</sub> generation seed  
was sown in 1998, and the F<sub>4</sub> generation seed was sown in  
1999 and later transplanted to an outdoor trial. A single plant  
selection was chosen for further evaluation and for asexual  
propagation in 1999 based on its deep purple rose flower  
color, branching and compact growth habit, and large flower  
clusters.

This single plant selection was asexually propagated and  
further evaluated in Fujisawa, Japan in 2001 in an indoor pot  
trial and an outdoor trial to confirm the uniformity and sta-  
bility of its characteristics. In 2003, another indoor pot trial  
and outdoor trial were performed to confirm uniqueness. The  
plant was also trialed in Salinas, Calif. The selection subse-  
quently was named ‘NAKPEN005’ and found to retain its  
distinctive characteristics through successive asexual propa-  
gations.

Plants Breeder’s Rights for this cultivar were applied for  
in Canada on Mar. 31, 2006.

**SUMMARY OF THE INVENTION**

The following are the most outstanding and distinguishing  
characteristics of this new cultivar when grown under nor-  
mal horticultural practices in Salinas, Calif.

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1. Rose flower color;
2. Large flower cluster size;
3. A branching growth habit; and
4. An upright and compact plant habit.

**DESCRIPTION OF PHOTOGRAPHS**

This new *Pentas* plant is illustrated by the accompanying  
photographs which show overall plant habit including  
blooms, buds, and foliage of the plant; the colors shown are  
as true as can be reasonably obtained by conventional photo-  
graphic procedures.

FIG. 1 shows the overall plant habit, including blooms,  
buds, mature foliage, and plant habit.

FIG. 2 shows a close-up of mature inflorescences.

**DESCRIPTION OF THE NEW CULTIVAR**

The following detailed description sets forth the distinc-  
tive characteristics of ‘NAKPEN005’. The data which define  
these characteristics were collected from asexual reproduc-  
tions carried out in Salinas, Calif. The data were obtained  
from plants grown about seven months from transplant in 6"  
pots from rooted cuttings under greenhouse conditions. The  
plants were pinched by nipping and shearing off new growth  
to force branching and increased numbers of blooms later.  
The following traits and characteristics describe the new  
variety. Color references are to the Royal Horticultural Soci-  
ety Colour Chart, 4<sup>th</sup> edition. Anatomic labels are from The  
Cambridge Illustrated Glossary of Botanical Terms, by M.  
Hickey and C. King, Cambridge University Press.

**DETAILED BOTANICAL DESCRIPTION OF THE  
NEW PLANT**

Classification:

*Family*.—Rubiaceae.

*Botanical name*.—*Pentas lanceolata*.

*Common name*.—*Pentas*.

Parentage:

*Female parent of the initial cross*.—‘New Look Red’ an  
unpatented red flowered *Pentas* plant.

*Male parent of the initial cross*.—‘New Look Rose’ an  
unpatented dark pink flowered *Pentas* plant.



## Growth:

*Time to produce a rooted cutting.*—The terminal 1.0 to 1.5 inches of an actively growing stem was excised. The vegetative cuttings were propagated in five to six weeks. The base of the cuttings were dipped for one to two seconds in a 1:9 solution of DIP 'N GROW (1 part solution: 9 parts water) root inducing solution immediately prior to placing into the cell trays. Cuttings were placed into plastic cells trays having 98 cells, and containing a moistened peat moss-based growing medium. The cuttings were misted with water from overhead for 10 seconds every 30 minutes until sufficient roots were formed.

*Environmental conditions for plant growth.*—Rooted cuttings were transplanted and grown in 20-cm diameter plastic pots in a glass greenhouse located in Salinas, Calif. Pots contained a peat moss-based growing medium. Soluble fertilizer containing 20% nitrogen, 10% phosphorous and 20% potassium was applied once a day or every other day by overhead irrigation. Pots were top-dressed with a dry, slow release fertilizer containing 20% nitrogen, 10% phosphorous and 18% potassium. The typical average air temperature was 24° C.

## Plant description:

*Life cycle.*—Annual.

*Habit.*—Upright with several basal branches; compact.

*Height.*—25.0 cm to 30.0 cm.

*Spread (including flowers).*—30.0 cm to 40.0 cm.

*Time to produce a rooted cutting.*—About 5 to 6 weeks.

*Time to produce a finished flowering plant.*—8 to 10 weeks.

*Flowering requirements.*—Will flower so long as the day length is greater than 12 hours and the temperature exceeds 13° C.

*Preferred propagation temperature.*—18° C. to 24° C.

## Branches:

*Number.*—8–10 per plant.

*Length.*—13.0 cm to 18.0 cm.

*Diameter.*—0.4 cm to 0.8 cm.

## Stems:

*Description.*—Strong; circular cross-section.

*Length.*—1.0 cm from soil line to first node.

*Diameter.*—0.4 cm.

*Internode length.*—2.5 cm to 5.0 cm.

*Color.*—RHS 143C (Green).

*Anthocyanin color.*—Absent.

*Pubescence.*—Medium amount.

*Pubescence color.*—RHS N155A (White).

## Leaves:

*Arrangement.*—Opposite.

*Shape.*—Lanceolate.

*Apex.*—Shortly acuminate.

*Base.*—Accute.

*Margin.*—Entire.

*Size.*—Length: 6.0 cm to 8.0 cm. Width: 2.5 cm to 3.5 cm.

*Color.*—Upper surface: Closest to RHS 139A (Green). Lower surface: RHS 138B (Green).

*Variation.*—Absent.

*Venation.*—Type: Pinnate. Color: Upper surface: RHS 145A (Yellow-green). Lower surface: RHS 144D (Yellow-green).

*Fragrance.*—Absent.

*Texture (both surfaces).*—Dull.

*Surface pubescence.*—Light to medium amount.

*Surface pubescence color.*—RHS N155A (White).

*Petiole length.*—0.2 cm to 0.3 cm.

*Petiole color.*—RHS 144D (Yellow-green).

## Flower bud:

*Texture.*—Slightly pubescent.

*Size.*—Length: 0.4 cm to 0.6 cm. Diameter: 0.15 cm to 0.2 cm.

*Shape.*—Elliptical, longitudinal cross-section.

*Color.*—RHS 72A (Red-purple) blended with RHS N144A (Yellow-green).

## Flowers:

*Inflorescence type.*—Corymb; 3 to 5 corymbs per plant in full bloom.

*Number of flowers per corymb.*—60 to 70 flowers and buds.

*Corymb diameter.*—6.0 cm to 8.0 cm.

*Corymb depth.*—4.5 cm to 5.0 cm.

*Fragrance.*—Absent.

*Corolla.*—Shape: Salverform with 5 radial petals. Diameter: 1.6 cm to 1.8 cm. Depth: 2.5 cm to 2.8 cm. Tube diameter: 0.1 cm at base to 0.3 cm at the limb. Tube color: Inner: RHS N155A (White). Outer: RHS 72A (Red-purple). Tube length: 2.5 cm to 2.8 cm. Tube texture (both surfaces): Glabrous.

*Petals.*—Texture: Glabrous. Size: Length: 0.6 cm to 0.8 cm. Width: 0.3 cm to 0.4 cm. Shape: Lanceolate. Apex: Acute. Margin: Entire. Color: Upper surface: RHS N74B (Red-purple). Lower surface: RHS N74D (Red-purple). Corolla throat: RHS N155A (White). Base of petal: RHS N155A (White).

*Calyx (sepals).*—Shape: 5 sepals, individual. Size: Length: 0.3 cm to 0.4 cm. Width: 0.1 cm to 0.2 cm. Apex: Acute. Base: Attenuate. Margin: Entire. Color: RHS 139A (Green).

*Pedice.*—Length: 0.1 cm to 0.5 cm. Diameter: 0.1 cm to 0.2 cm. Color: RHS N74B (Red-purple). Texture: Glabrous.

*Peduncle.*—Length: 1.5 cm to 1.6 cm. Diameter: 0.2 cm to 0.3 cm. Texture: Glabrous. Color: RHS N74B (Red-purple).

## Reproductive organs:

*Stamens.*—Quantity: 5. Filament: Color: RHS 144D (yellow-green). Length: 0.3 cm. Diameter: Less than 0.1 cm. Anther color: RHS 4A (Yellow). Pollen amount: Abundant. Pollen color: RHS N155A (White).

*Pistils.*—Quantity: 1. Length: 2.5 cm to 3.0 cm. Stigma color: RHS N80B (Purple) at tip. Style color: RHS 144D (Yellow-green). Ovary: Inferior. Surface color: RHS 144D (Yellow-green).

Fruit and seed set: Has not been observed.

Disease and insect resistance: No particular resistance or susceptibility has been observed.

## COMPARISON WITH PARENTAL AND COMMERCIAL CULTIVARS

‘NAKPEN005’ is a new and unique variety of *Pentas* owing to its compact, branching growth habit, upright form, large flower cluster size, and rose flower color.

Table 1 shows ‘NAPKEN005’ compared to lines of the initial cross.

TABLE 1

Comparison with Lines of Initial Cross ‘New Look Rose’ and ‘New Look Red’			
Characteristic	‘NAPKEN005’	Male: ‘New Look Rose’	Female: ‘New Look Red’
Flower color	Rose	Dark Pink	Red
Plant growth habit	Upright, branching and compact	Branching	Upright

‘NAKPEN005’ is similar to the commercial *Pentas* variety ‘New Look Rose’ (unpatented) however, there are differences as listed in Table 2.

TABLE 2

Comparison of Characteristics between ‘NAKPEN005’ and ‘New Look Rose’		
Characteristic	‘NAKPEN005’	‘New Look Rose’
Flower color	Rose	Dark Pink
Flower cluster size	Large	Medium

I claim:

1. A new and distinct cultivar of *Pentas* plant as shown and described herein.

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Fig. 1



Fig. 2