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**Shiotsuki**

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(54) **PENTAS PLANT NAMED ‘NAKPEN002’**

(50) Latin Name: *Pentas lanceolata*  
Varietal Denomination: **NAKPEN002**

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See application file for complete search history.

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(57) **ABSTRACT**

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

**1 Drawing Sheet**

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Genus and species: *Pentas lanceolata*.  
Variety denomination: ‘NAKPEN002’.

**BACKGROUND OF THE NEW PLANT**

The present invention comprises a new and distinct cul-  
tivar of *Pentas*, botanically known as *Pentas lanceolata*, and  
hereinafter referred to by the cultivar name ‘NAKPEN002’.  
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 White’  
(unpatented) having pure white flowers, large flower clusters  
and a long flowering period, and a commercial male *Pentas*  
plant designated ‘New Salmon’ (unpatented) having salmon  
colored flowers, large flower clusters and a long flowering  
period. The F<sub>1</sub> seeds produced by the hybridization were  
sown in a greenhouse in 1996 and later transplanted to an  
outdoor trail. 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 evalu-  
ation and for asexual propagation in 1999 based on its white  
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  
stability of its characteristics. In 2003, another indoor pot  
trial and outdoor trial were performed to confirm unique-  
ness. The plant was also trialed in Salinas, Calif. The  
selection subsequently was named ‘NAKPEN002’ and  
found to retain its distinctive characteristics through succes-  
sive asexual propagations.

Plant Breeder’s Rights for this cultivar were applied for in  
Canada on Apr. 4, 2005.

**SUMMARY OF THE INVENTION**

The following are the most outstanding and distinguish-  
ing characteristics of this new cultivar when grown under  
normal horticultural practices in Salinas, Calif.

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1. White 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  
photographic 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 ‘NAKPEN002’. The data which  
define these characteristics were collected from asexual  
reproductions carried out in Salinas, Calif. The data were  
obtained from plants grown about four months from propa-  
gation by terminal cuttings under greenhouse conditions.  
The following traits and characteristics describe the new  
variety. Color references are to The Royal Horticultural  
Society 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 White’ an  
unpatented pure-white flowered *Pentas* plant.  
*Male parent of the initial cross*.—‘New Salmon’ an  
unpatented salmon 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 cell 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 growth 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 and compact with several basal branches.

*Height.*—24.5 cm to 26.5 cm.

*Spread (including flowers).*—25.0 cm to 36.0 cm.

*Time to produce a rooted cutting.*—About 5 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.*—10 per plant.

*Length.*—17.0 cm to 18.0 cm.

*Diameter.*—0.4 cm to 0.5 cm.

## Stems:

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

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

*Diameter.*—0.4 cm.

*Internode length.*—3.0 cm to 3.8 cm.

*Color.*—RHS 144A (yellow-green).

*Anthocyanin.*—Absent.

*Texture.*—Heavily pubescent.

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

## Leaves:

*Arrangement.*—Opposite.

*Shape.*—Lanceolate.

*Apex.*—Acuminate.

*Base.*—Attenuate.

*Margin.*—Entire to undulate.

*Size.*—Length: 9.2 cm to 10.0 cm. Width: 4.4 cm to 5.0 cm.

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

*Variation.*—Absent.

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

*Fragrance.*—Absent.

*Texture.*—Dull.

*Surface pubescence.*—Heavy.

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

*Petiole length.*—0.4 cm to 0.6 cm.

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

## Flower bud:

*Texture.*—Slightly pubescent.

*Size.*—Length: 0.5 cm to 0.7 cm. Diameter: 0.1 cm.

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

*Color.*—RHS N144D (yellow-green).

## Flowers:

*Inflorescence type.*—Corymbose; 4 to 5 corymbs in full bloom per plant.

*Number of flowers per corymb.*—60 to 90 flowers and buds.

*Corymb diameter.*—9.0 cm to 12.5 cm.

*Corymb depth.*—4.5 cm to 5.0 cm.

*Fragrance.*—Absent.

*Corolla.*—Shape: Salverform with 5 radial petals.

Diameter: 1.7 cm to 2.0 cm. Depth: 1.5 cm to 1.7 cm.

Tube diameter: 0.2 cm to 0.4 cm.

*Calyx (sepals).*—Shape: 5, fused. Apex: Acute. Base: Attenuate. Margin: Entire. Color: RHS 139A (green).

*Peduncle.*—Color: RHS N155A (white). Length: 1.5 cm to 1.7 cm. Diameter: 0.1 cm.

*Petals.*—Texture: Glabrous. Size: Length: 0.6 cm to 0.7 cm. Width: 0.5 cm to 0.6 cm. Shape: Lanceolate. Apex: Acute. Margin: Entire. Color: Upper surface: RHS N155A (white). Lower surface: RHS N155A (white). Corolla throat: RHS N155A (white).

## Reproductive organs:

*Stamens.*—Quantity: 5. Filament: Color: RHS 4A (yellow). Length: 0.3 cm to 0.4 cm. Diameter: Less than 0.1 cm. Anther color: RHS 4A (yellow). Pollen amount: Abundant. Pollen color: RHS 4A (yellow). Pollen description: Powdery.

*Pistils.*—Quantity: 1, split into 2 stigmas. Length: 2.3 cm to 2.5 cm. Stigma color: RHS 136D (green). Style color: RHS 155A (white).

Fruit and seed set: Has not been observed.

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

## COMPARISON WITH COMMERCIAL CULTIVARS

‘NAKPEN002’ is a new and unique variety of *Pentas* owing to its compact, branching growth habit, upright form, large flower cluster size, and white flower color. Table 1 below shows ‘NAKPEN002’ compared to the lines of the initial cross.

TABLE 1

Comparison with Lines of Initial Cross ‘New Salmon’ and ‘New White’			
Characteristic	‘NAKPEN002’	Male: ‘New Salmon’	Female: ‘New White’
Flower color	White	Salmon (Light Orange)	White
Plant growth habit	Upright, branching, compact	Upright	Upright

‘NAKPEN002’ is similar to the commercial *Pentas* variety ‘New Look White’ (unpatented) however, there are differences as listed in the table below:

TABLE 2

Comparison of Characteristics between ‘NAKPEN002’ and ‘New Look White’		
Characteristic	‘NAKPEN002’	‘New Look White’
Plant growth habit	Upright, branching and compact	Mounding
Flower cluster size	Large	Medium

I claim:

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

\* \* \* \* \*





Fig. 1

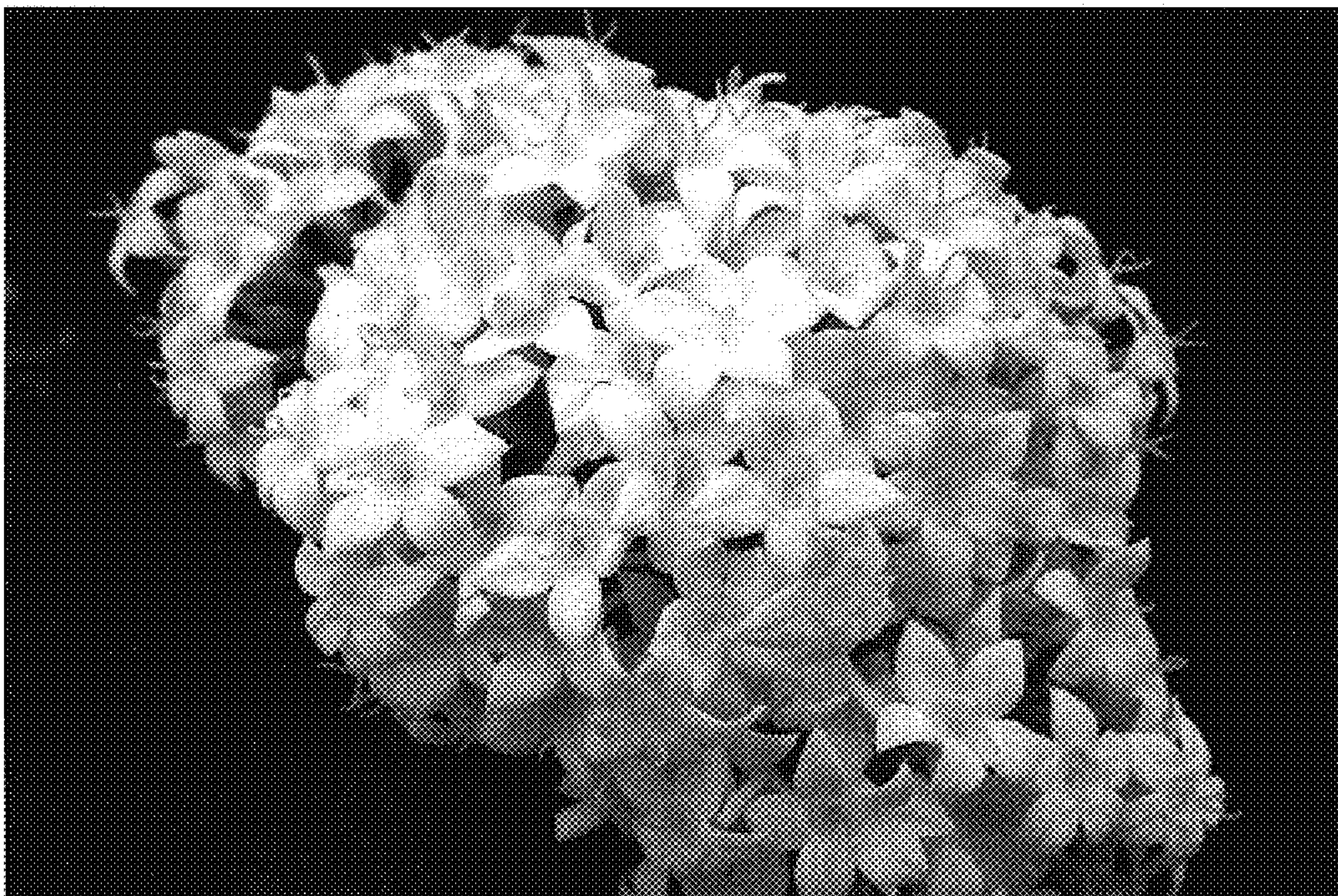


Fig. 2