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**Dümmen**

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(54) **NEW GUINEA IMPATIENS PLANT NAMED  
'DUESWEETFIRE'**

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patent is extended or adjusted under 35  
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(58) **Field of Search** ..... **Plt./318**

(56) **References Cited**  
**PUBLICATIONS**

UPOV-ROM hit on 'Desweetfire', GTI-Jouve Retrieval  
software, Plant Variety Database 2001/05.\*

\* cited by examiner

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(57) **ABSTRACT**

A new and distinct cultivar of New Guinea Impatiens plant  
named 'Duesweetfire', characterized by its compact,  
upright, rounded and uniform plant habit; freely branching  
and freely flowering habit; red-colored flowers that are  
positioned above and beyond the leaves; and dark green-  
colored leaves.

**1 Drawing Sheet**

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**BOTANICAL CLASSIFICATION/CULTIVAR  
DENOMINATION**

*Impatiens hawkeri* cultivar Duesweetfire.

**BACKGROUND OF THE INVENTION**

The present Invention relates to a new and distinct culti-  
var of New Guinea Impatiens plant, botanically known as  
*Impatiens hawkeri*, and hereinafter referred to by the name  
'Duesweetfire'.

The new Impatiens is a product of a planned breeding  
program conducted by the Inventor in Rheinberg, Germany.  
The objective of the breeding program is to develop freely  
branching New Guinea Impatiens cultivars that flower early  
and have large flowers.

The new Impatiens originated from a cross-pollination  
made by the Inventor in 1996 of a proprietary selection of  
*Impatiens hawkeri* identified as code number K-1, not  
patented, as the female, or seed parent, with a proprietary  
selection of *Impatiens hawkeri* identified as code number  
94-15-1, not patented, as the male, or pollen parent. The  
cultivar Duesweetfire was discovered and selected by the  
Inventor as a flowering plant within the progeny of the stated  
cross-pollination in a controlled environment in Rheinberg,  
Germany in 1997.

Asexual reproduction of the new cultivar by terminal  
cuttings taken in Rheinberg, Germany since 1998, has  
shown that the unique features of this new Impatiens are  
stable and reproduced true to type in successive generations.

**SUMMARY OF THE INVENTION**

The following traits have been repeatedly observed and  
are determined to be the unique characteristics of  
'Duesweetfire'. These characteristics in combination distin-  
guish 'Duesweetfire' as a new and distinct Impatiens culti-  
var:

1. Compact, upright, rounded and uniform plant habit.
2. Freely branching and freely flowering habit.
3. Red-colored flowers that are positioned above and  
beyond the leaves.

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4. Dark green-colored leaves.

Plants of the new Impatiens can be compared to plants of  
the female parent, the selection K-1. In side-by-side com-  
parisons conducted in Rheinberg, Germany, plants of the  
New Impatiens differed from plants of the selection K-1 in  
the following characteristics:

1. Plants of the New Impatiens were more compact than  
plants of the selection K-1.

2. Plants of the New Impatiens were more freely flower-  
ing than plants of the selection K-1.

Plants of the New Impatiens can be compared to plants of  
the male parent, the selection 94-15-1. In side-by-side  
comparisons conducted in Rheinberg, Germany, plants of  
the New Impatiens differed from plants of the selection  
94-15-1 in the following characteristics:

1. Plants of the New Impatiens were more compact than  
plants of the selection 94-15 -1.

2. Plants of the New Impatiens were more freely flower-  
ing than plants of the selection 94-15-1.

Plants of the New Impatiens can also be compared to  
plants of the cultivar Lanai, disclosed in U.S. Plant Pat. No.  
8,397. In side-by-side comparisons conducted in Rheinberg,  
Germany, plants of the New Impatiens differed from plants  
of the cultivar Lanai in the following characteristics:

1. Plants of the New Impatiens were more compact than  
plants of the cultivar Lanai.

2. Plants of the New Impatiens had shorter internodes than  
plants of the cultivar Lanai.

3. Plants of the New Impatiens had smaller leaves than  
plants of the cultivar Lanai.

4. Plants of the New Impatiens had shorter peduncles than  
plants of the cultivar Lanai.

**BRIEF DESCRIPTION OF THE PHOTOGRAPH**

The accompanying colored photograph illustrates the  
overall appearance of the new cultivar, showing the colors as  
true as it is reasonably possible to obtain in colored repro-  
ductions of this type. Colors in the photograph may differ  
from the color values cited in the detailed botanical descrip-

tion which accurately describe the colors of the new *Impatiens*. The photograph comprises a side perspective view of a typical flowering plant of 'Duesweetfire' grown in a container.

#### DETAILED BOTANICAL DESCRIPTION

The cultivar Duesweetfire has not been observed under all possible environmental conditions. The phenotype may vary somewhat with variations in environment such as temperature and light intensity without, however, any variance in genotype.

The aforementioned photograph and following observations and measurements describe plants grown in Rheinberg, Germany during the spring, under commercial practice in a glass-covered greenhouse. Plants were about 16 weeks from cuttings and were grown in 12-cm containers. During the production of the plants, day and night temperatures averaged 18° C. and light levels were about 4,500 lux.

In the following description, color references are made to The Royal Horticultural Society Colour Chart, 1995 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Impatiens hawkeri* cultivar Duesweetfire.

Parentage:

*Female parent*.—Proprietary selection of *Impatiens hawkeri* identified as code number K-1, not patented.

*Male parent*.—Proprietary selection of *Impatiens hawkeri* identified as code number 94-15-1, not patented.

Propagation:

*Type cutting*.—Terminal cuttings.

*Time to initiate roots*.—Summer: About 7 days at 22° C. Winter: About 10 days at 22° C.

*Time to produce a rooted cutting*.—Summer: About 18 days at 22° C. Winter: About 25 days at 22° C.

*Root description*.—Fine, fibrous and white in color.

*Rooting habit*.—Freely branching.

Plant description:

*General appearance*.—Compact, upright, rounded and uniform plant growth habit; freely branching and flowering habit. Moderately vigorous.

*Crop time*.—From unrooted cuttings, about 16 weeks are required to produce finished flowering plants in 12-cm containers.

*Plant height*.—About 14 cm.

*Plant diameter or spread*.—About 30 cm.

*Lateral branches*.—Quantity per plant: About six. Length: About 11.5 cm. Diameter: About 6 mm. Internode length: About 3 cm. Color: 59A.

*Foliage description*.—Arrangement: Opposite or in whorls. Length: About 9.1 cm. Width: About 3 cm. Shape: Ovate. Apex: Apiculate. Base: Obtuse. Margin: Serrulate with ciliation. Texture, upper and lower surfaces: Smooth, glabrous; leathery. Venation pattern: Pinnate. Color: Young and fully expanded foliage, upper surface: 147A. Young and fully expanded foliage, lower surface: 147B. Venation, upper and lower surfaces: 59A.

*Petiole*.—Length: About 1.7 cm. Diameter: About 2 mm. Texture, upper and lower surfaces: Smooth, glabrous. Color, upper and lower surfaces: 59A.

Flower description:

*Flower type and flowering habit*.—Single red-colored flowers. Freely and continuously flowering; usually about five flowers and flower buds per lateral branch. Flowers positioned above and beyond the foliage and typically face upward or outward. Petals self-cleaning; gynoecium persistent. Flowers not fragrant.

*Flower longevity*.—Flowers last about one week on the plant.

*Flowering season*.—Year-round under greenhouse conditions; in the garden, flowering from spring until fall. Plants begin flowering about eight weeks after planting.

*Flower buds*.—Length: About 1.2 cm. Diameter: About 1 cm. Shape: Ovoid. Color: 59A.

*Flower diameter*.—About 5.7 by 5 cm.

*Flower depth*.—About 8 mm.

*Flower shape*.—Mostly rounded; mostly flat to slightly cupped.

*Petals*.—Quantity: Five per flower, imbricate. Length: About 2.2 cm. Width: About 2.4 cm. Shape: Obtuse. Apex: Emarginate, lobed. Base: Acute. Margin: Entire. Texture, upper and lower surfaces: Smooth; satiny. Color: When opening and fully opened, upper surface: 43A; color does not fade with subsequent development. When opening and fully opened, lower surface: 44C.

*Spur*.—Quantity: One per flower. Length: About 4.5 cm. Diameter: At apex: Less than 1 mm. At flower: About 2.5 mm. Aspect: Curved downward. Color: 59A.

*Peduncles*.—Length: About 4.5 cm. Diameter: About 1 mm. Strength: Moderately strong; flexible. Color: 59A.

*Reproductive organs*.—Androecium: Stamen quantity/arrangement: Five fused at anthers, hooded; filaments free. Anther length: About 4 mm. Anther shape: Oval. Anther color: Towards apex, 43A; towards base, 16C. Pollen amount: Abundant. Pollen color: 11D. Gynoecium: Pistil quantity: One per flower. Pistil length: About 5 mm. Stigma color: 145D. Style length: Less than 1 mm. Style color: 145D. Ovary arrangement: Five-celled. Ovary color: 146A.

*Seeds/fruits*.—Seeds and fruit development has not been observed.

*Disease/pest resistance*: Plants of the new *Impatiens* have not been observed to be resistant to pathogens and pests common to *Impatiens*.

*Temperature tolerance*: Plants of the new *Impatiens* have been observed to be tolerant to temperatures ranging from 8 to 35° C.

It is claimed:

1. A new and distinct cultivar of New Guinea *Impatiens* plant named 'Duesweetfire', as illustrated and described.

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