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Takahashi et al.

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(54) **GENTIAN PLANT NAMED 'ASHIRO 29-2075'**

(50) Latin Name: ***Gentiana* L. hybrid**
Varietal Denomination: **Ashiro 29-2075**

(71) Applicant: **HACHIMANTAI CITY**, Hachimantai (JP)

(72) Inventors: **Ryo Takahashi**, Hachimantai (JP); **Yutaro Takamura**, Morioka (JP); **Rina Suzuki**, Hachimantai (JP); **Takashi Hikage**, Morioka (JP)

(73) Assignee: **HACHIMANTAI CITY**, Hachimantai (JP)

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A01H 6/40 (2018.01)

(52) **U.S. Cl.**
USPC **Plt./433**

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Primary Examiner — June Hwu
(74) *Attorney, Agent, or Firm* — Seckel IP, PLLC

(57) **ABSTRACT**

A new variety of *Gentiana* L. plant (Japanese gentian) which is a double flower type and has a diameter at the top of the corolla of 30.6 mm.

4 Drawing Sheets

Common name: Japanese gentian.
Botanical classification: *Gentiana* L. hybrid.
Variety denomination: 'Ashiro 29-2075'.

BACKGROUND OF THE NEW VARIETY

The present invention relates to a new and distinct variety of Japanese gentian, *Gentiana* L., which has been given the variety denomination 'Ashiro 29-2075'.

This new gentian is a double flower type and has a diameter at the top of the corolla of 30.6 mm. It is adapted for use as cut flowers or pot flowers.

ORIGIN OF THE VARIETY

The variety resulted from a multiple-step cross-breeding program starting from a group of unpatented varieties. The ancestor varieties were unpatented strains owned by the applicant, having the company-internal names: '17INP' which belongs to the species *Gentiana triflora*, and '25-322-R1', '26-904', '12-320-1', '14-526-2', '11-24-1', '11-192-1', '13SH', '10-76', '6-62', '12-186-1', '12-212-1', and '25-817', which belong to the species *Gentiana scabra*. Group crosses and/or self-crosses with a single individual were performed. The program had seven steps, as shown in the map of FIG. **6**, which also indicates the company-internal names of the intermediary, unpatented strains. At each step, the individuals with good plant and flower shape were selected. The corresponding species identification is (((*scabra* x (*scabra* x *triflora*)) x *scabra*))) x ((*scabra* x (*scabra* x *triflora*)).

The multiple-step cross-breeding program was performed over multiple growing seasons up to 2018; in October 2018, selection of the variety was performed. We asexually reproduced the variety by vegetative reproduction through cuttings, tissue culturing via lateral bud culture, and in October 2020, the new variety was found to be stable and asexually reproduced true to type in successive generations.

The variety was developed and propagated in Iwate, Japan.

The variety can be propagated by cutting (optimal timing is mid-February) and/or tissue culturing via lateral bud culture.

Cultivation of the variety does not require particular conditions. Maintenance and storage method of the plant material can be by tissue culture via lateral bud culture.

The variety is adapted for use as cut flowers or pot flowers.

SUMMARY OF THE VARIETY

The variety is distinguished by double flower type and has a diameter at the top of the corolla of 30.6 mm, as compared to 'Shine Blue Ashiro' variety which is single flower type and has a diameter at the top of the corolla of 25.0 mm. 'Shine Blue Ashiro' is unpatented.

A comparison with 'Shine Blue Ashiro' variety is presented as follows in Table 1:

TABLE 1

	'Shine Blue Ashiro'	'Ashiro 29-2075'
Flower type	Single	double
Diameter at top of corolla	25.0 mm	30.6 mm

Additional distinguishing characteristics of the 'Ashiro 29-2075' plant are the six-seven (6.6 on average) lobes of the paracorolla, and the strong blue color (N95B on R.H.S. colour chart) of the secondary lobes with acute apex in-between the main lobes of the corolla

BRIEF DESCRIPTION OF THE DRAWINGS

In the accompanying drawings, which are as nearly true as is reasonable possible to make in a color illustration of this type:

FIG. **1** is a color photograph showing the 'Ashiro 29-2075' plant as grown in a culturing bed;

FIG. **2** is a color photograph showing flowers of the 'Ashiro 29-2075' plant;

FIG. **3** is a color photograph showing flowering stages of flowers of the 'Ashiro 29-2075' plant;

FIG. **4** is a color photograph showing petals of flowers of the 'Ashiro 29-2075' plant;

FIG. **5** is another color photograph showing flowers of the 'Ashiro 29-2075' plant;

FIG. **6** is a map showing the steps of the cross-breeding program from which the variety was obtained.

Due to chemical and/or digital development, processing and printing, the plants or portions of plants depicted in the photographs may or may not be precisely accurate, when compared to the actual botanical specimens.

DETAILED DESCRIPTION OF THE INVENTION

The plants in the botanical description below and shown in the Figures were grown in Iwate, Japan. The plants were collected in October 2020 at age 16 months.

Colors are given according to The 2015 R.H.S. Colour Chart.

BOTANICAL DESCRIPTION

TABLE 2

Stem	Length:	81.9 cm
	Stem shape in cross-section:	circular
	Thickness (main flowering stem):	3.4 mm
	Number of flowering stems per plant (average):	12.7
	Texture:	smooth
	Color:	strong yellow green (145A on RHS Colour Chart)
	Anthocyanin coloration at two thirds from base:	present
	Number of internodes longer than 5 mm (average):	21.2
	Length of internode in central third:	4.3 cm
	Side shoots:	present
	Number of side shoots with only one node (average):	0.2
	Number of side shoots with more than one node (average):	8.9
	Position of longest leaf:	in lower third
Leaf	Length:	6.4 cm
	Leaf arrangement:	opposite leaf arrangement
	Leaf attachment:	sessile
	Leaf apex:	acuminate
	Leaf margin:	entire
	Leaf base:	rounded
	Leaf texture (inner side):	smooth
	Leaf texture (outer side):	smooth
	Leaf color (inner side):	moderate olive green (137A on RHS Colour Chart)
	Leaf color (outer side):	moderate yellow green (138C on RHS Colour Chart)
	Leaf venation pattern:	parallel venation (three lines)
	Width:	2.2 cm
	Shape:	broad lanceolate
	Shape in cross section:	folded upwards
	Shape in longitudinal section:	straight
	Twisting:	present
	Number of conspicuous veins:	3
	Anthocyanin coloration:	absent
Inflorescence	Distribution of flowers:	clustered
	Position of flowers:	terminal and axillary
Plant:	Number of terminal flowers (average):	5.1
	Typical plant height:	about 81.9 cm (cut flower or potted plant)
	Typical growth habit:	erect
	Plant spread (average):	69.6 cm
	Sequence of flowering:	from top downwards
	Number of flowers per inflorescence:	top: 5.1 others: 2.0
	Sequence of flowering:	from top downwards
	Number of flowers at central flowering node (average):	2.0
	Number of flowering node:	7.1
Flower bud (about 4 days before flowering)	Shape of bud:	oval
	Length of bud (average):	40.96 mm
	Diameter of bud (average):	13.36 mm
	Color of bud:	dark purple (83A on RHS Colour Chart)
Flower	Type:	double
	Time of flowering:	late October
	Flower longevity (potted plant):	17 days
	Flower longevity (cut flower):	8 days
Corolla	Depth:	42.8 mm
	Diameter at middle third:	17.8 mm
	Shape:	campanulate
	Diameter at top:	30.6 mm
	Curvature of lobes:	reflexed
	Color of inner side of lobes:	moderate blue (N95C on RHS Colour Chart)
	Tube length (average):	26.1 mm
	Color of upper part of inner side of tube:	light purplish blue (N95D on RHS Colour Chart)
	Color of upper part of outer side of tube:	dark purple (83A on RHS Colour Chart)
	Streaked pattern on outer side of tube:	present
	Color of streaked pattern on outer side of tube:	purplish-brown
	Density of spots on the inner side of the corolla lobes:	very sparse
	Density of spots on the upper part of the inner side of the corolla tube:	sparse
	Density of spots on the outer side of the corolla tube:	absent
	Number of lobes:	6.6
	Length of lobes:	7.8 mm
	Width of lobes:	10.8 mm
	Shape of lobes:	broad triangular
	Shape of distal end of lobes:	acute
	Presence of secondary lobes:	present
	Average number of secondary lobes per flower:	6.6
	Shape of secondary lobe apex:	acute
	Color of secondary lobes	strong blue (N95B on RHS Colour Chart) for both surfaces
Paracorolla	Presence of paracorolla:	present
	Number of paracorolla lobes (average):	6.6
	Paracolla apex shape:	acute
Calyx	Anthocyanin coloration:	present
	Length of tube:	12.7 mm
	Diameter of tube:	6.9 mm
	Shape of tube:	funnel-shaped

TABLE 2-continued

	Shape of lobe:	narrow lanceolate
Sepal	Sepal number:	6
	Sepal lobe shape:	narrow lanceolate
	Sepal apex:	acute
	Sepal color (inner side):	dark yellowish green (136B on the RHS Colour Chart)
	Sepal color (outer side):	strong yellow green (143C on the RHS Colour Chart)
Reproductive organs	Stamens and anther:	stamens are mutated into petals and there is no anther
	Time of flowering:	late October
	Pistil number:	1
	Pistil length (average):	32.3 mm
	Anther shape:	narrow oval
	Anther color:	light yellow green (145C on RHS Colour Chart)

In the above chart, specific numbers correspond to average values.

Other features of the plant are as follows:

Disease resistance.—Normal resistance was observed for pests and diseases in Iwate, Japan, using pest control by chemical spraying for gentian.

Cold hardiness.—Strong, the variety can withstand winter in Iwate, Japan, including low temperatures of about −10° C. with abundant snow.

Heat tolerance.—Normal, the variety can withstand summer in Iwate, Japan, including high temperatures of about 35° C.

Flower fragrance.—Absent.

We claim:

1. A new and distinct variety of *Gentiana* plant named 'Ashiro 29-2075', substantially as described and illustrated herein.

* * * * *

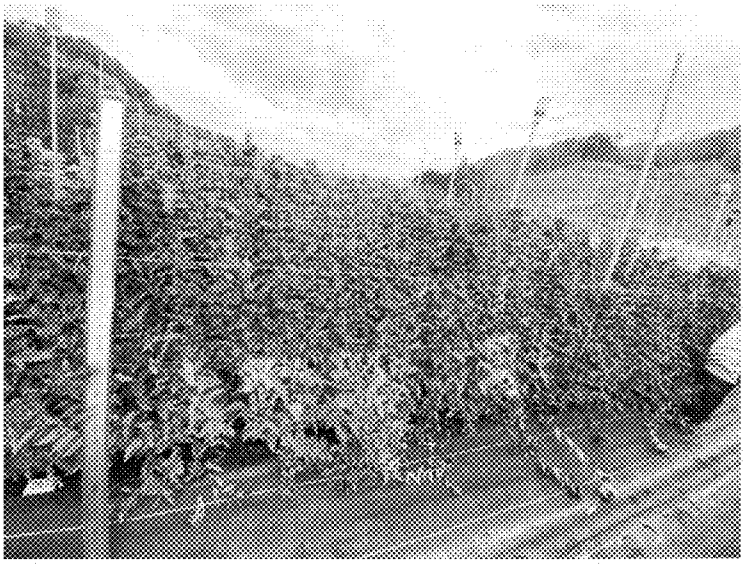


FIG. 1

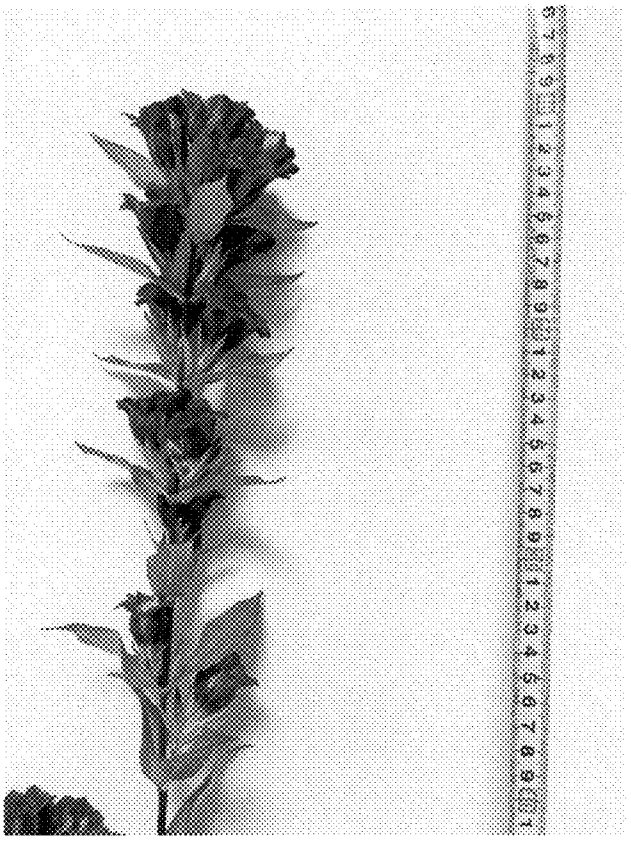


FIG. 2

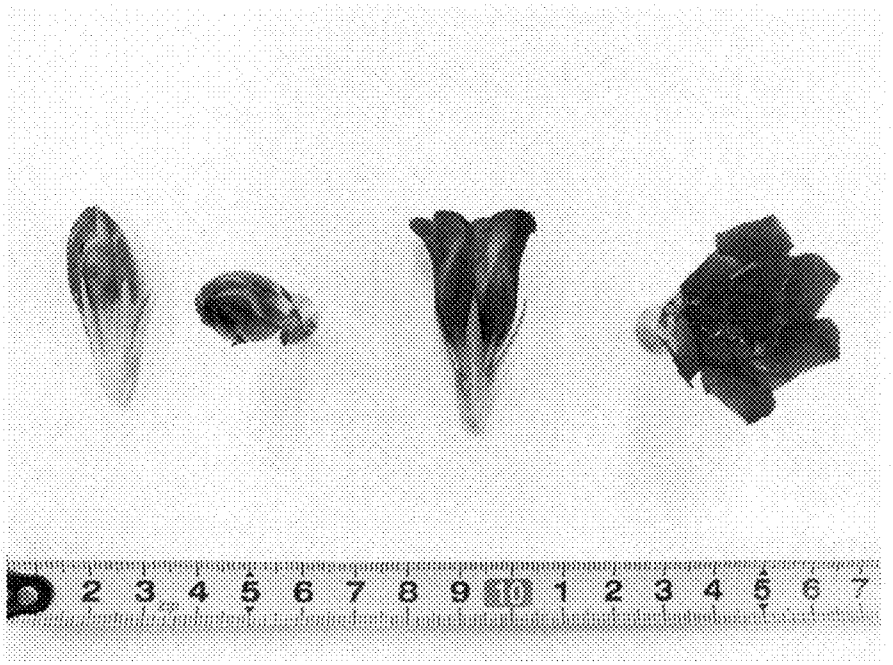


FIG. 3

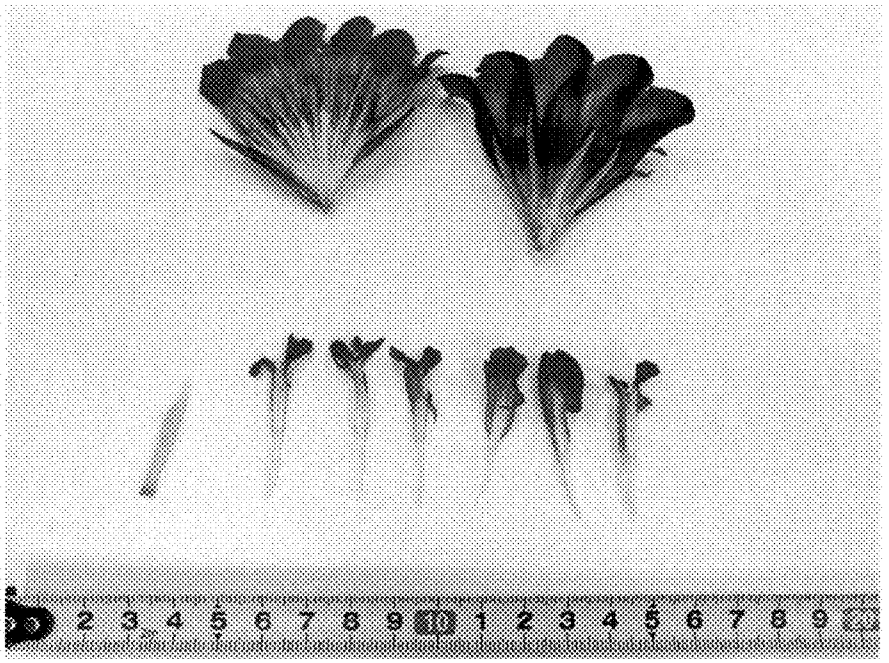
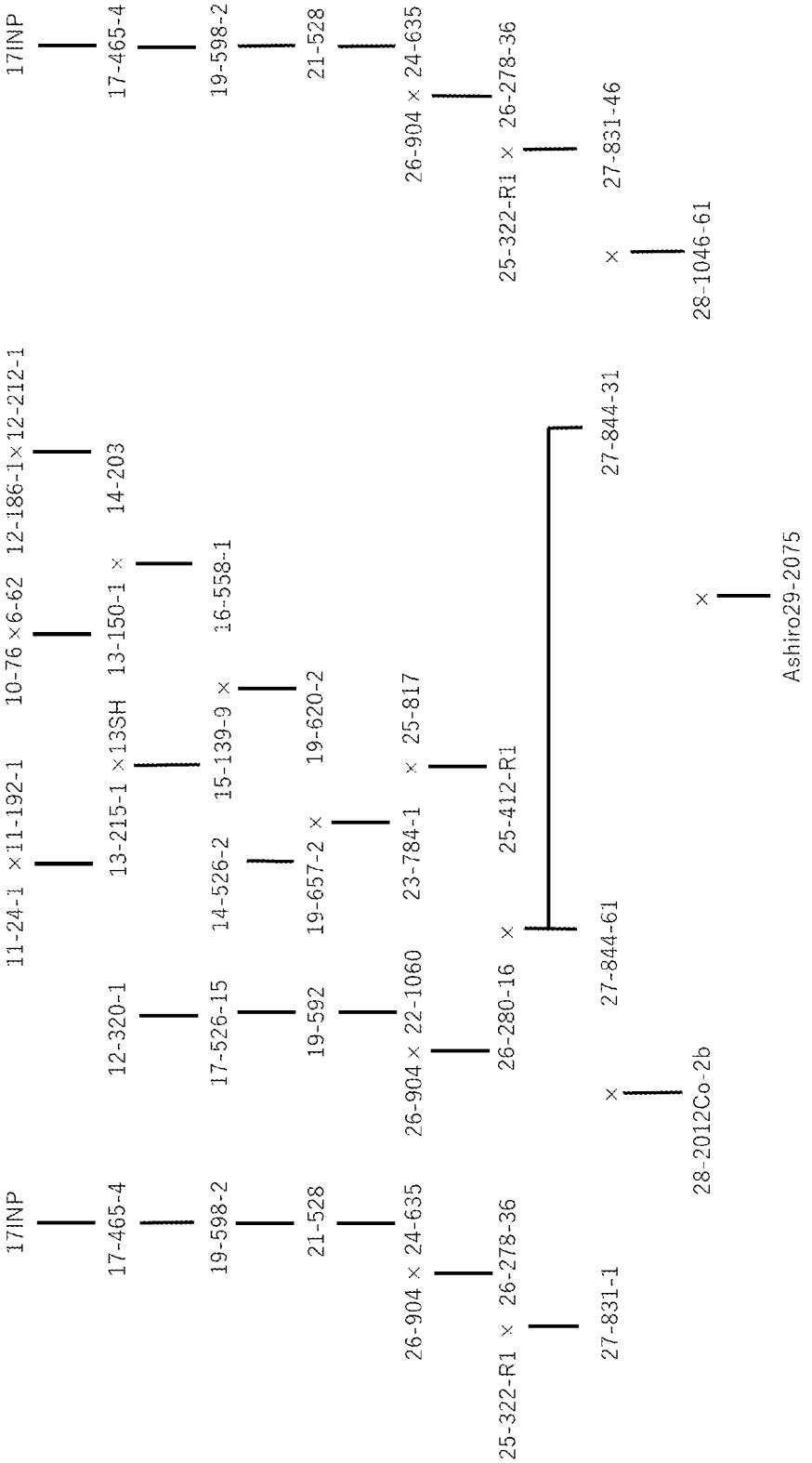


FIG. 4

FIG. 5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19-598-2
21-528
26-904 × 24-635
25-322-R1 × 26-278-36
27-831-1
×
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11-24-1 ×11-192-1
12-320-1
17-526-15
19-592
26-904 × 22-1060
26-280-16 ×
27-844-61
×
28-2012Co-2b
13-215-1 ×13SH
14-526-2
15-139-9 ×
19-657-2 ×
19-620-2
23-784-1 × 25-817
25-412-R1
10-76 ×6-62
13-150-1 ×
16-558-1
12-186-1×12-212-1
14-203
27-844-31
×
Ashiro29-2075
17INP
17-465-4
19-598-2
21-528
26-904 × 24-635
25-322-R1 × 26-278-36
27-831-46
×
28-1046-61

FIG. 6