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**Takahashi et al.**

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(54) **GENTIAN PLANT NAMED ‘ASHIRO 29-2076’**

(22) Filed: **Dec. 20, 2021**

(50) Latin Name: ***Gentiana L. hybrid***  
Varietal Denomination: **Ashiro 29-2076**

(51) **Int. Cl.**  
**A01H 5/02** (2018.01)  
**A01H 6/40** (2018.01)

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USPC ..... **Plt./433**

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

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

(57) **ABSTRACT**  
A new variety of *Gentiana L.* plant (Japanese gentian) which is a double flower type and has about 3 (2.9 on average) side shoots with only one node.

(21) Appl. No.: **17/556,680**

**4 Drawing Sheets**

**1**

**2**

Common name: Japanese gentian.  
Botanical classification: *Gentiana L. hybrid*.  
Variety denomination: ‘Ashiro 29-2076’.

The variety was developed and propagated in Iwate, Japan.

**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 29-2076’.

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

This new gentian is a double flower type and has about 3 (2.9 on average) side shoots with only one node. It is adapted for use as cut flowers or pot flowers.

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.

**ORIGIN OF THE VARIETY**

**SUMMARY 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

The variety is distinguished by double flower type and has about 3 (2.9 on average) side shoots with only one node, as compared to ‘Shine Blue Ashiro’ variety which is single flower type and has about 6 side shoots with only one node. ‘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 29-2076’
Flower type	Single	double
Number of side shoots with only one node	6	about 3 (2.9 on average)

$((scabra (scabra \times triflora)) \times scabra) \times ((scabra \times (scabra \times triflora)))$

Additional distinguishing characteristics of the ‘Ashiro 29-2076’ plant are the about sept (6.8 on average) lobes of the paracorolla.

**BRIEF DESCRIPTION OF THE DRAWINGS**

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.

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 29-2076’ plant as grown in a culturing bed;

FIG. 2 is a color photograph showing flowers of the ‘Ashiro 29-2076’ plant;

FIG. 3 is a color photograph showing flowering stages of flowers of the ‘Ashiro 29-2076’ plant;

FIG. 4 is a color photograph showing petals of flowers of the ‘Ashiro 29-2076’ plant;

FIG. 5 is another color photograph showing flowers of the ‘Ashiro 29-2076’ 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:	74.5 cm	30
	Stem shape in cross-section:	circular	
	Thickness (main flowering stem):	3.8 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):	20.4	
	Length of internode in central third:	3.8 cm	
	Side shoots:	present	
	Number of side shoots with only one node (average):	2.9	
	Number of side shoots with more than one node (average):	11.6	
	Position of longest leaf:	in lower third	
	Length:	9.0 cm	
	Leaf arrangement:	opposite leaf arrangement	
Leaf attachment:	sessile	50	
Leaf apex:	broad lanceolate		
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:	1.9 cm		
Shape:	broad lanceolate		
Shape in cross section:	folded upwards		
Shape in longitudinal section:	straight		
Twisting:	absent		
Number of conspicuous veins:	3		
Anthocyanin coloration:	present	65	

TABLE 2-continued

Inflor- escence Plant:	Distribution of flowers:	clustered	5		
	Position of flowers:	terminal and axillary			
	Number of terminal flowers (average):	6.7			
	Typical plant height:	about 74.5 cm (cut flower or potted plant)			
	Typical growth habit:	erect			
	Plant spread (average):	65.0 cm			
	Sequence of flowering:	from top downwards			
	Number of flowers per inflorescence:	top: 6.7 others: 1.9			
	Sequence of flowering:	from top downwards			
	Number of flowers at central flowering node (average):	1.9			
	Number of flowering node:	6.5			
	Shape of bud:	narrow oval			
	Flower bud (about 3 days before flowering)	Length of bud (average):		42.51 mm	20
		Diameter of bud (average):		13.94 mm	
		Color of bud:		dark purple (83A on RHS Colour Chart)	
Flower	Type:	double			
Corolla	Time of flowering:	late October			
	Depth:	41.7 mm			
	Diameter at middle third:	17.7 mm			
	Shape:	campanulate			
	Diameter at top:	28.5 mm			
	Curvature of lobes:	strongly reflexed			
	Color of inner side of lobes:	strong blue (N95B on RHS Colour Chart)			
	Tube length (average):	27.1 mm			
	Color of upper part of inner side of tube:	strong purplish blue (95C 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:	dark purple (83A on RHS Colour Chart)			
	Density of spots on the inner side of the corolla lobes:	sparse			
	Density of spots on the upper part of the inner side of the corolla tube:	medium			
	Density of spots on the outer side of the corolla tube:	absent			
Number of lobes:	6.8	55			
Length of lobes:	8.7 mm				
Width of lobes:	10.5 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:	6.8				
Shape of secondary lobe apex:	acute				
Paracorolla	Presence of paracorolla:		present		
Number of paracorolla lobes (average):	6.8				
Paracolla apex shape:	acute				
Calyx	Anthocyanin coloration:		present		
Length of tube:	15.3 mm				
Diameter of tube:	6.0 mm				
Shape of tube:	funnel-shaped				
Shape of lobe:	narrow lanceolate				

TABLE 2-continued

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)	5
	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	10
	Time of flowering:	late October	
	Pistil number:	1	
	Pistil length (average):	38.3 mm	
	Anther shape:	narrow oval	15
	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  $-10^{\circ}$  C. with abundant snow.

*Heat tolerance*.—Normal, the variety can withstand summer in Iwate, Japan, including high temperatures of about  $35^{\circ}$  C.

*Flower fragrance*.—Absent.

We claim:

1. A new and distinct variety of *Gentiana* plant named 'Ashiro 29-2076', substantially as described and illustrated herein.

\* \* \* \* \*



FIG. 1

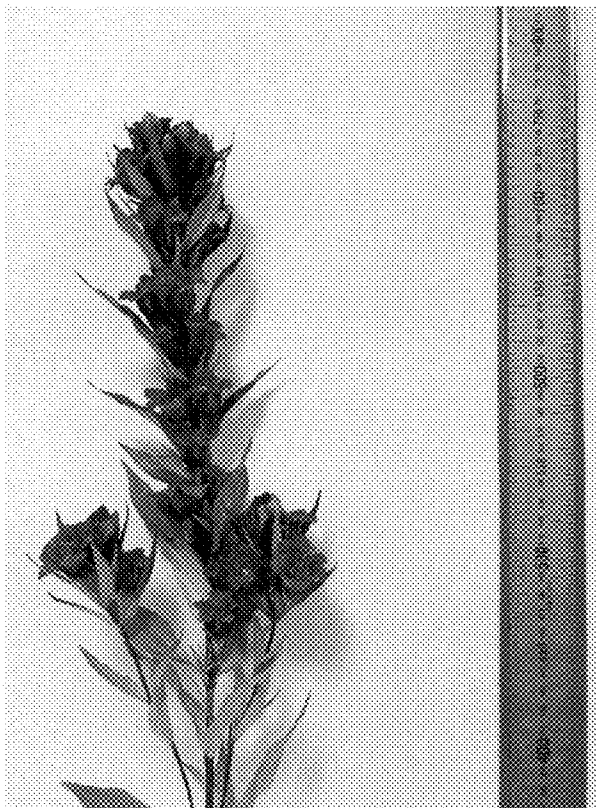


FIG. 2

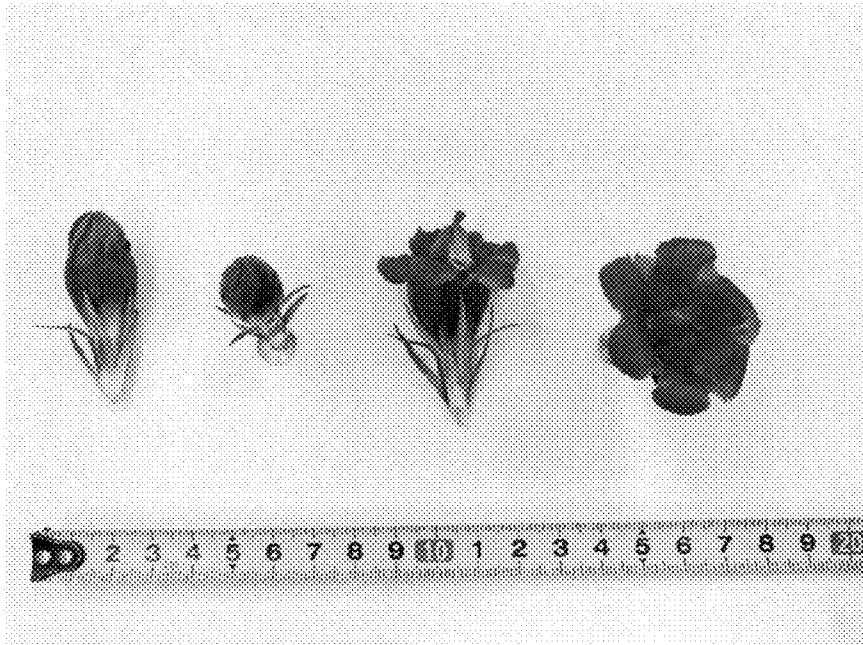


FIG. 3



FIG. 4

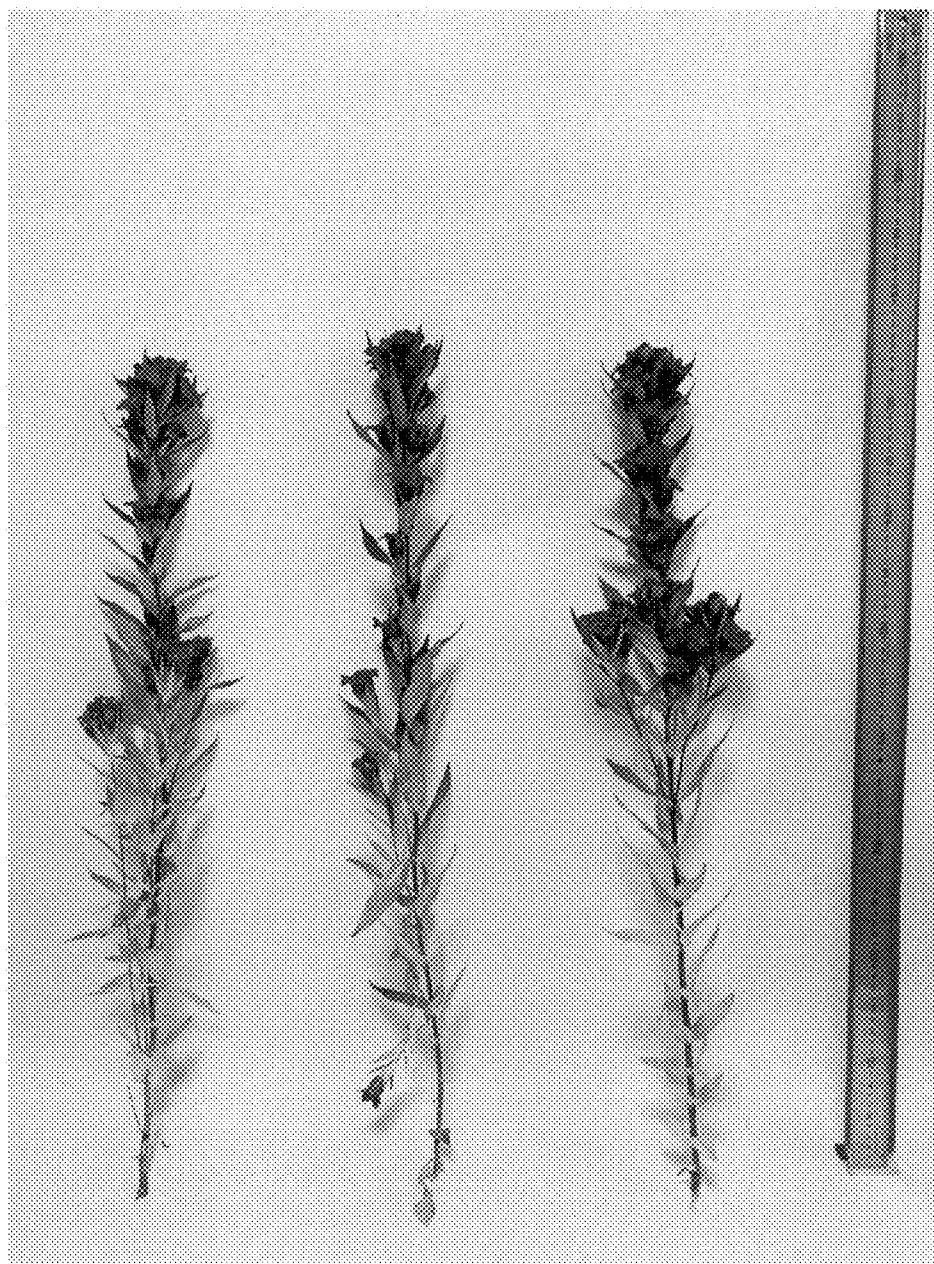


FIG. 5

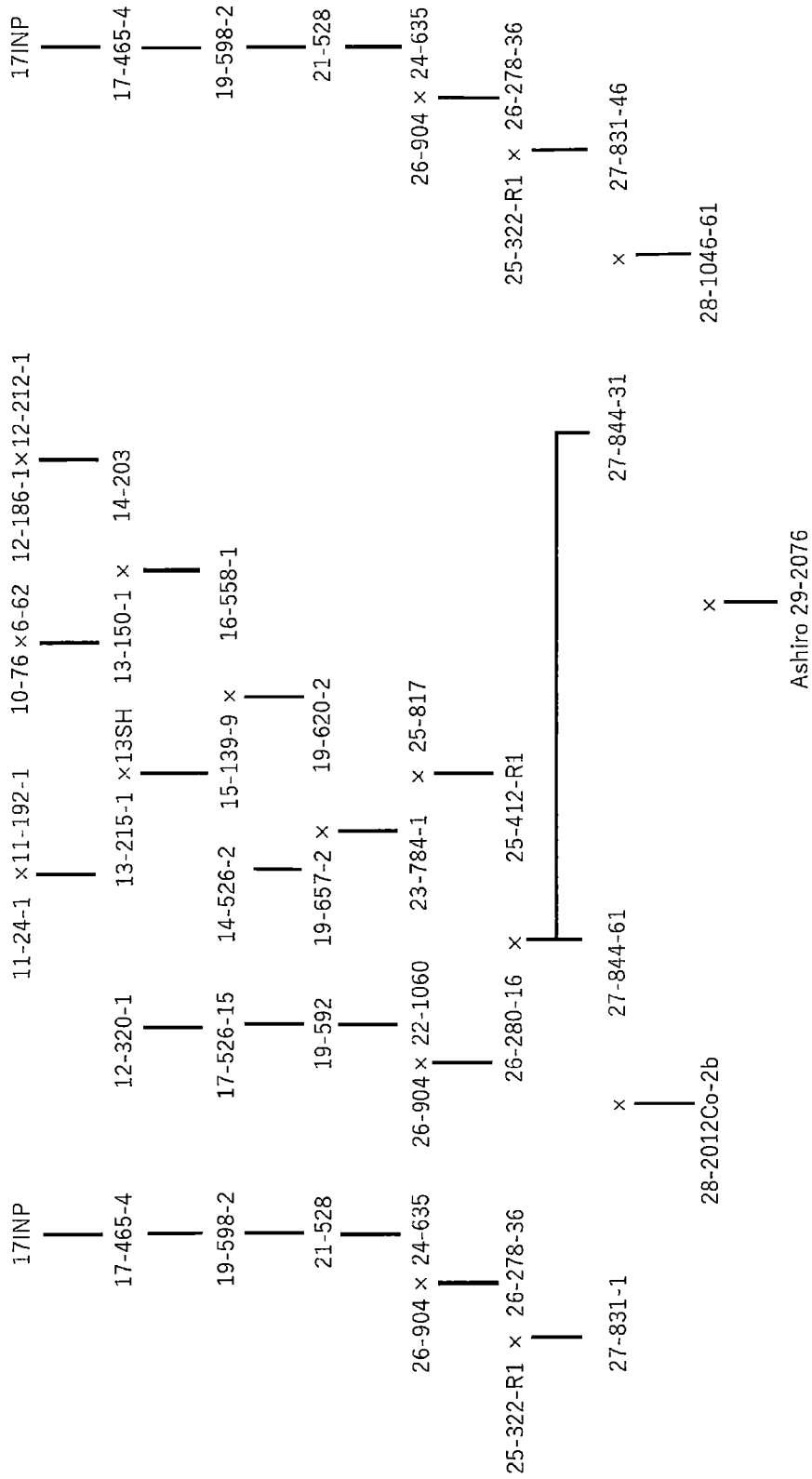


FIG. 6