



US00PP35190P2

(12) **United States Plant Patent**
Takahashi et al.

(10) **Patent No.:** **US PP35,190 P2**

(45) **Date of Patent:** **May 23, 2023**

(54) **GENTIANA PLANT NAMED ‘ASHIRO 29-2073’**

(50) Latin Name: ***Gentiana L. hybrid***
Varietal Denomination: **Ashiro 29-2073**

(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)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 13 days.

(21) Appl. No.: **17/556,658**

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

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

(52) **U.S. Cl.**
USPC **Plt./433**
CPC **A01H 6/40** (2018.05)

(58) **Field of Classification Search**
USPC Plt./433
CPC A01H 5/02
See application file for complete search history.

Primary Examiner — Kent L Bell

(74) *Attorney, Agent, or Firm* — Seckel IP, PLLC

(57) **ABSTRACT**

A new variety of *Gentiana L.* plant (Japanese gentian) which has a color of inner side of lobes which is light purple (N80D on The RHS Colour Chart) and a stem length of 83.8 cm on average.

4 Drawing Sheets

1

Common name: Japanese gentian.
Botanical classification: *Gentiana L. hybrid*.
Variety denomination: ‘Ashiro 29-2073’.

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 29-2073’.

This new gentian has a color of inner side of lobes which is light purple (N80D on The RHS Colour Chart) and a stem length of 83.8 cm on average. 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’, ‘25-817’, ‘17SUP’, and ‘8-130SP6A1’, 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

$$(((scabrax(scabraxtriflora))xscabra))x((scabraxtriflora)xscabra)).$$

With respect to the direct parents ‘28-2012Co-3b’ and ‘27-836-53’, the instant variety ‘Ashiro 29-2073’ has a triploid and double-flowered flower type, whereas ‘28-2012Co-3b’ has tetraploid and double-flowered flower type, and ‘27-836-53’ has diploid and single-flowered flower type.

2

The multiple-step cross-breeding program was performed over multiple growing seasons up to 2018; in September 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 the color of inner side of lobes being light purple (N80D on The RHS Colour Chart) and by its stem length of 83.8 cm on average, as compared to ‘Lovely Ashiro’ variety whose color of inner side of lobes is pale purple (N75B on The RHS Colour Chart) and whose stem length is 110.1 cm on average. ‘Lovely Ashiro’ is unpatented.

A comparison with ‘Lovely Ashiro’ variety is presented as follows in Table 1:

TABLE 1

	‘Lovely Ashiro’	‘Ashiro 29-2073’
Color of inner side of lobes	Pale purple (N75B on the RHS Colour Chart)	light purple (N80D on the RHS Colour Chart)
Stem length	110.1 cm	83.8 cm

Additional distinguishing characteristics of the ‘Ashiro 29-2073’ plant are the six-seven (6.3 on average) lobes of the

TABLE 2-continued

	Color of upper part of outer side of tube:	greyish purplish red (N77B on RHS Colour Chart)	
	Streaked pattern on outer side of tube:	present	5
	Color of streaked pattern on outer side of tube:	purplish-brown	
	Number of lobes:	at least 6	
	Length of lobes:	10.0 mm	
	Width of lobes:	11.6 mm	10
	Shape of lobes:	broad triangular	
	Shape of distal end of lobes:	acute	
	Presence of secondary lobes:	present	
	Shape of secondary lobes:	acute	
	Shape of secondary lobe apex:	acute	
	Margin of secondary lobes:	entire	15
	Length of secondary lobes (average):	4.9 mm	
	Width of secondary lobes (average):	2.9 mm	
	Texture of secondary lobes:	smooth	
	Color of secondary lobes:	light purple (N80C on RHS Colour Chart) for both surfaces	20
	Presence of spots on secondary lobes:	present	
	Color of spots on secondary lobes:	strong yellow green (143B on RHS Colour Chart)	25
Paracorolla	Presence of paracorolla:	present	
	Number of paracorolla lobes (average):	6.3	
Calyx	Anthocyanin coloration:	present	
	Length of tube:	15.6 mm	
	Diameter of tube:	7.5 mm	30
	Shape of tube:	funnel-shaped	
	Texture of tube (inner side):	smooth	
	Texture of tube (outer side):	slightly wrinkled	
	Shape of lobe:	narrow lanceolate	
Sepal	Sepal number:	6	
	Sepal lobe shape:	narrow lanceolate	35
	Sepal length (average):	20.9 mm	
	Sepal width (average):	4.6 mm	
	Sepal apex:	acute	
	Sepal margin:	entire	

TABLE 2-continued

	Sepal texture (inner side):	smooth
	Sepal texture (outer side):	smooth
	Sepal color (inner side):	moderate yellowish green (139B 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
	Pistil number:	1
	Pistil length (average):	35.0 mm
	Stigma (none)	
	Style (none)	
	Ovary color:	light yellow green (145C on RHS Colour Chart)
Roots	Root shape:	fine and fibrous
Pedicel	No pedicel	
Peduncle	Peduncle length (average):	2.90 mm
	Peduncle diameter (average):	3.30 mm
	Peduncle texture:	smooth
	Peduncle 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 29-2073', substantially as described and illustrated herein.

* * * * *



FIG. 1

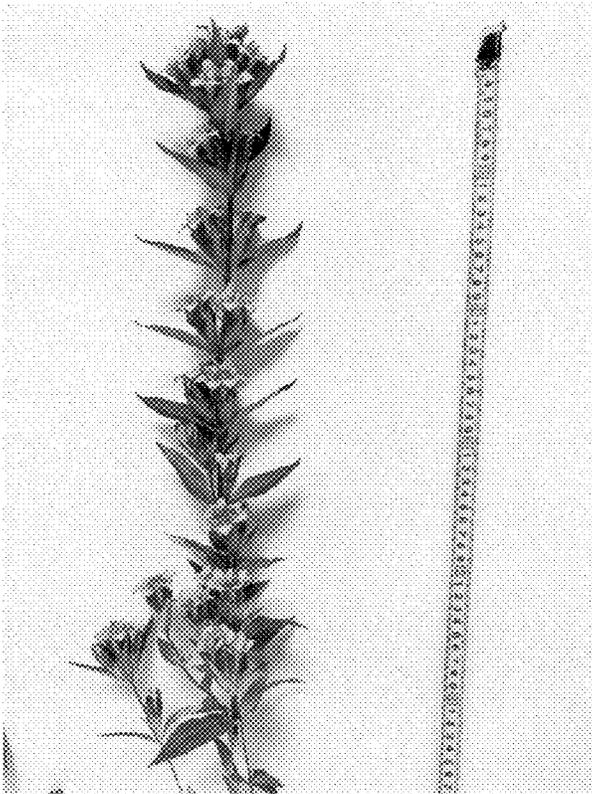


FIG. 2

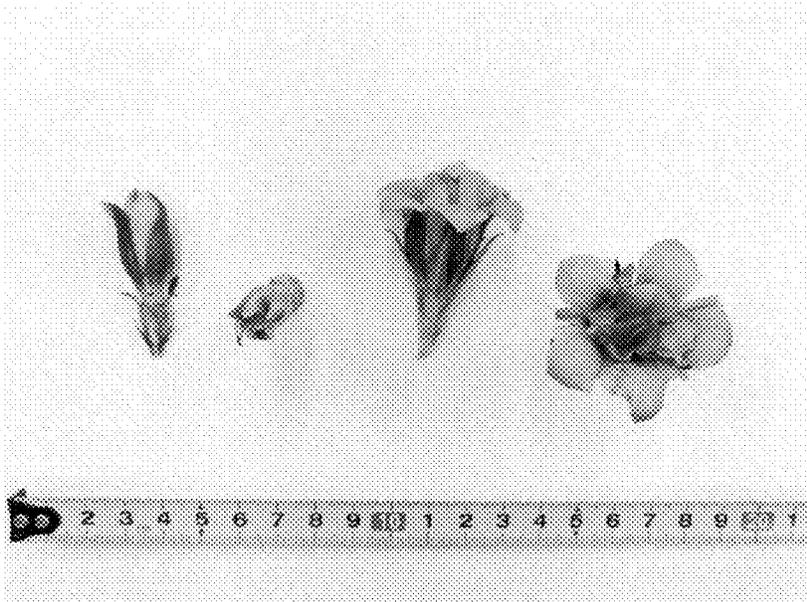


FIG. 3

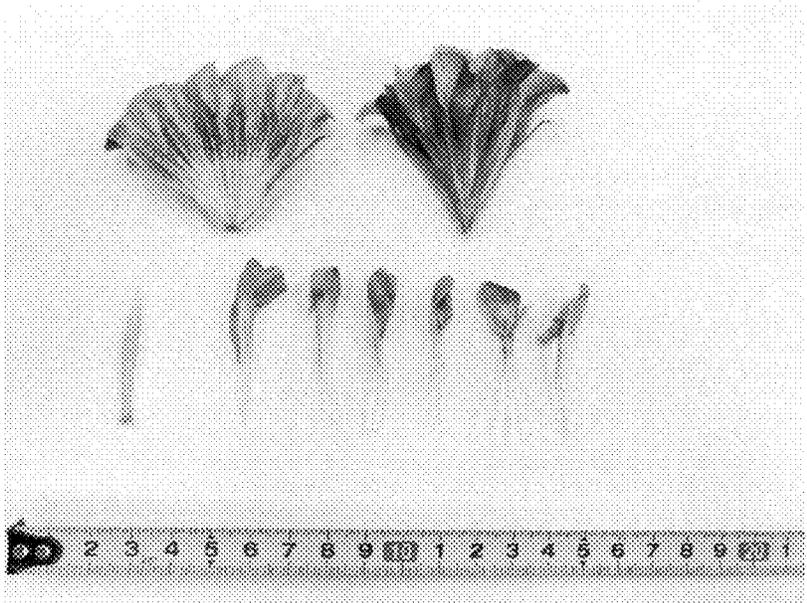


FIG. 4

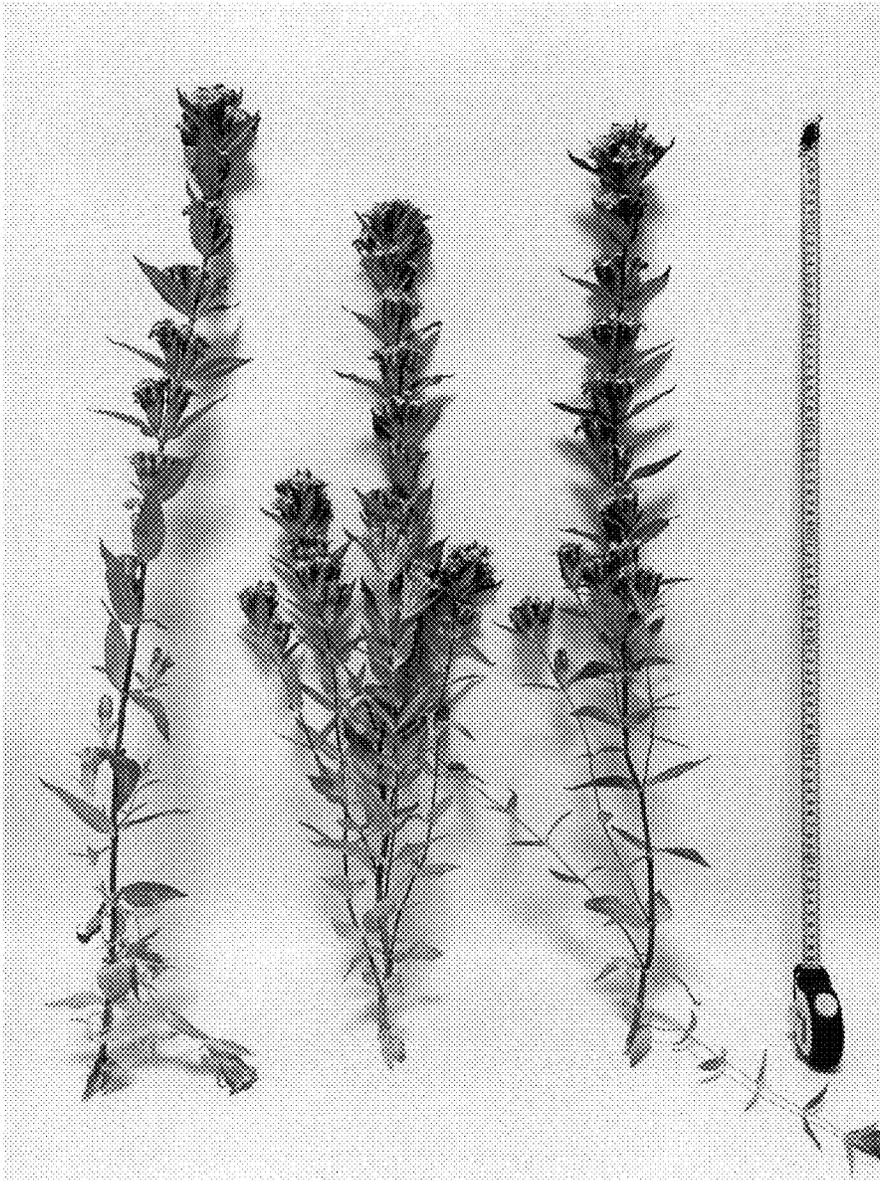


FIG. 5

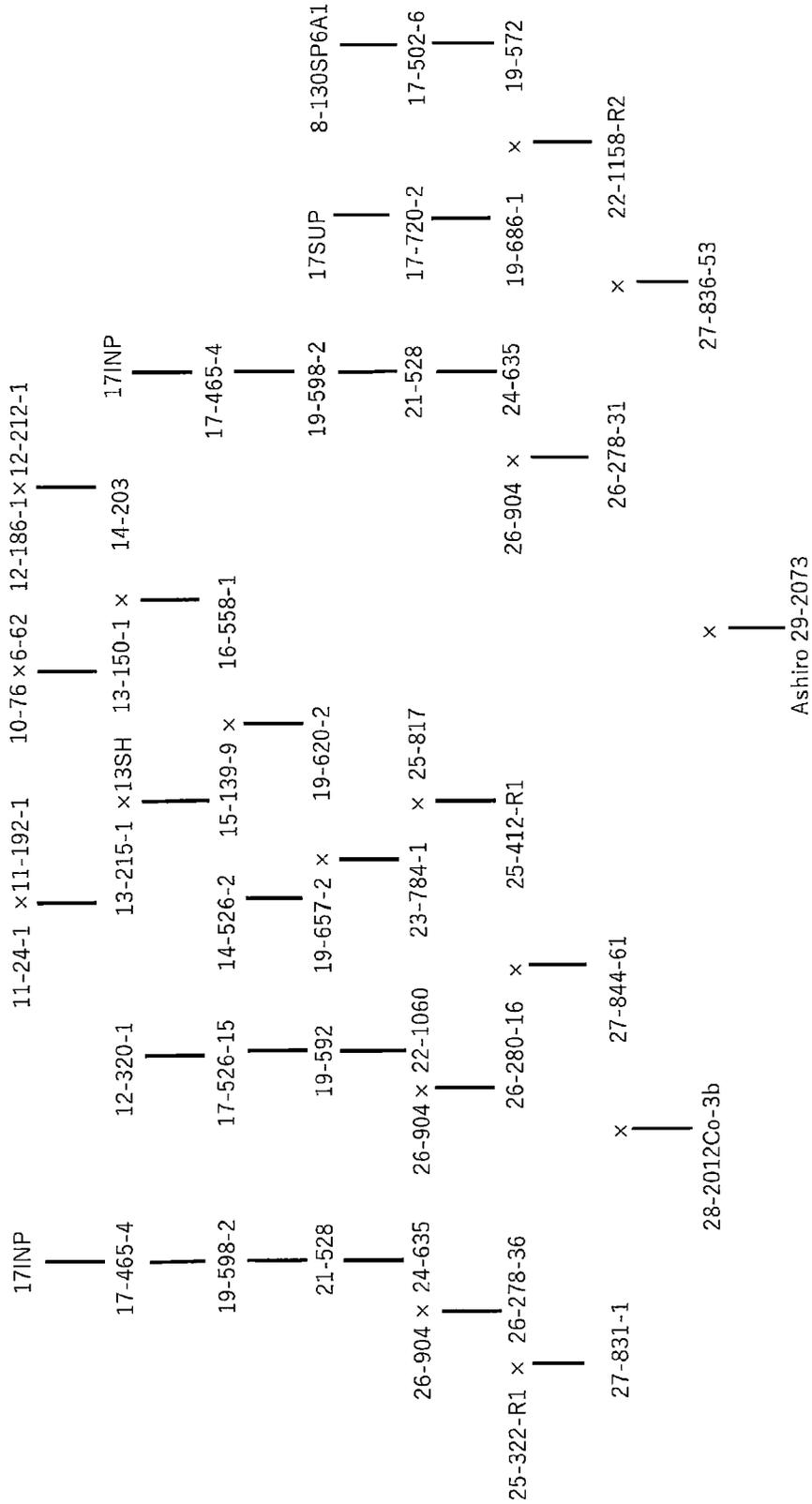


FIG. 6