

How to Manage DUS Test Data in Japan

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- 1. Data accumulation**
- 2. Function of Database**
- 3. Database (In case of Japan)**
- 4. Function of GAPS (NCSS Database)**

Data accumulation (DUS test data)

特性一覧表						
形質	出願品種			対照品種		
		測定値	備考		測定値	備考
出願番号						
登録番号						
特性値調査年	2017			2017		
1 草丈	05 中	72.9cm		07 高	106.4cm	
2 草型	01 叢生でない			01 叢生でない		
3 草姿（叢生品種に限る）						
4 分枝の粗密（叢生品種に限る）						
5 茎の色	01 緑			01 緑		
6 たく葉の大きさ	01 無又は極小			03 小		
7 葉柄の向き	03 斜上			03 斜上		
8 葉柄の葉長に対する長さ	06 やや長	25.4%		05 中	22.1%	
9 葉の長さ	05 中	115.5mm		05 中	119.3mm	
10 葉の幅	04 やや狭	66.5mm		05 中	72.3mm	
11 葉の長さ／幅	05 中	1.7		05 中	1.7	
12 葉の先端裂片の相対的な長さ	04 やや短	30.9%		05 中	36.9%	
13 葉の一次欠刻の深さ	07 深			08 かなり深		
14 葉の裂片縁部の重なり	04 接する			05 重なる		
15 葉の基部の形	03 円形			05 凹形		

Variety description



Photograph

階級値設定表												
No.	形質	小数点以下有効桁数	階級値	1	2	3	4	5	6	7	8	9
1	Plant : height (cm)	1	階級範囲	~	20.0	40.0	60.0	80.0	100.0	120.0	150.0	200.0
			階級幅	19.9	39.9	59.9	79.9	99.9	119.9	149.9	199.9	
			中間値		20.0	20.0	20.0	20.0	20.0	30.0	50.0	
			標準品種備考		30.0	50.0	70.0	90.0	110.0	135.0	175.0	
8	Petiole: length relative to leaf length (%)	1	階級範囲	~	1.1	2.1	3.1	4.1	5.1	6.1	7.1	8.1
			階級幅	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	
			中間値		1.0	1.0	1.0	1.0	1.0	1.0	1.0	
			標準品種備考		1.6	2.6	3.6	4.6	5.6	6.6	7.6	
9	Leaf: length including petiole (mm)	1	階級範囲	~	6.0	16.0	36.0	72.0	120.0	180.0	252.0	336.0
			階級幅	5.9	15.9	35.9	71.9	119.9	179.9	251.9	335.9	
			中間値		10.0	20.0	36.0	48.0	60.0	72.0	84.0	
			標準品種備考		11.0	26.0	54.0	96.0	150.0	216.0	294.0	

Assessment table

Data accumulation (Variety description)



Variety description

Plant : height...medium

Plant: type...non bushy

Stem: color...green

Leaf: length including petiole...medium

Leaf: width...narrow

Flower head: diameter...medium

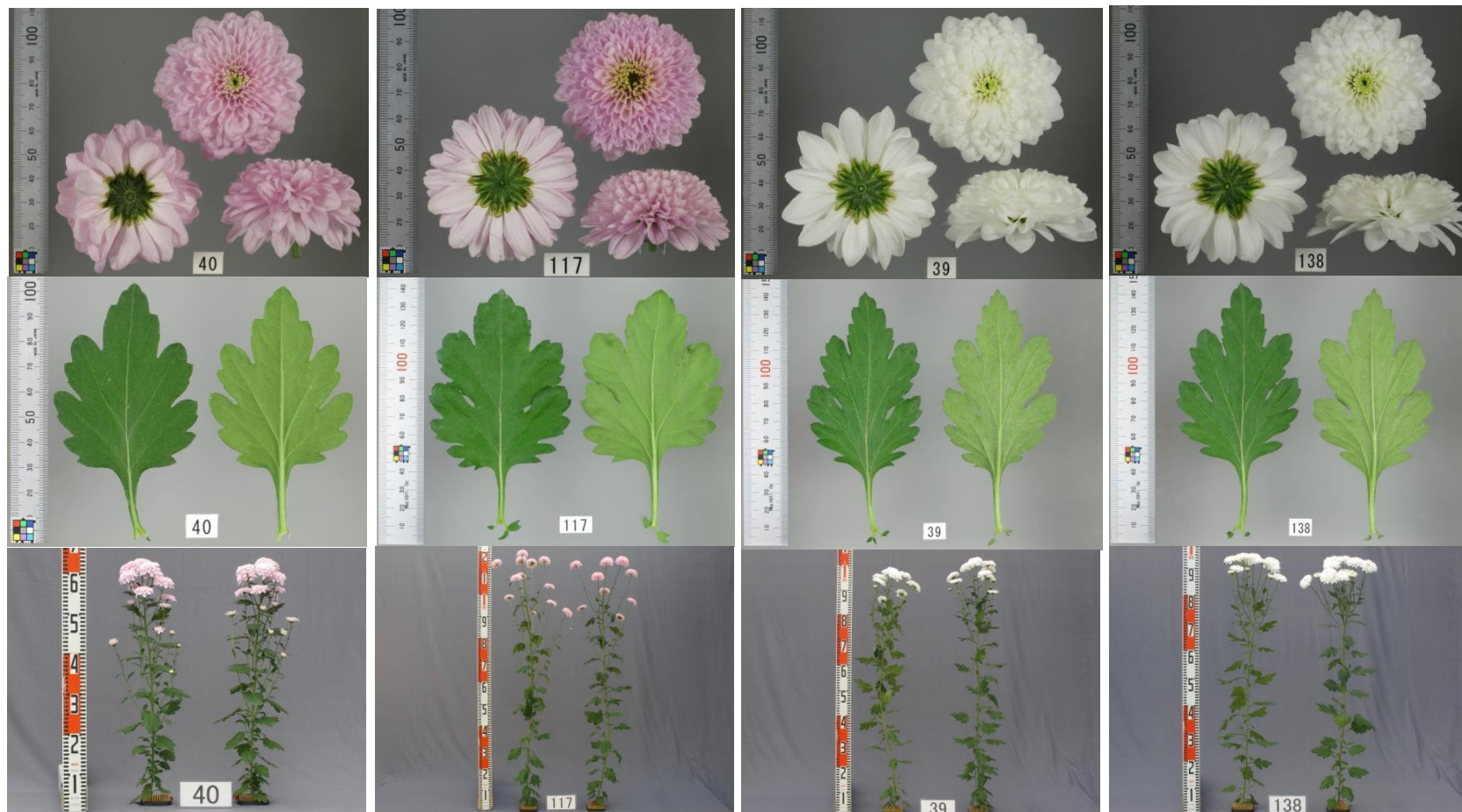
Flower head: height ...medium

Ray floret: ratio length/width...medium

Ray floret: main color of
inner side...white

Data accumulation (Photograph)

Actual DUS test photos of past (Chrysanthemum)



Data accumulation (Photograph)

Actual DUS test photos of past (Chrysanthemum)



2015

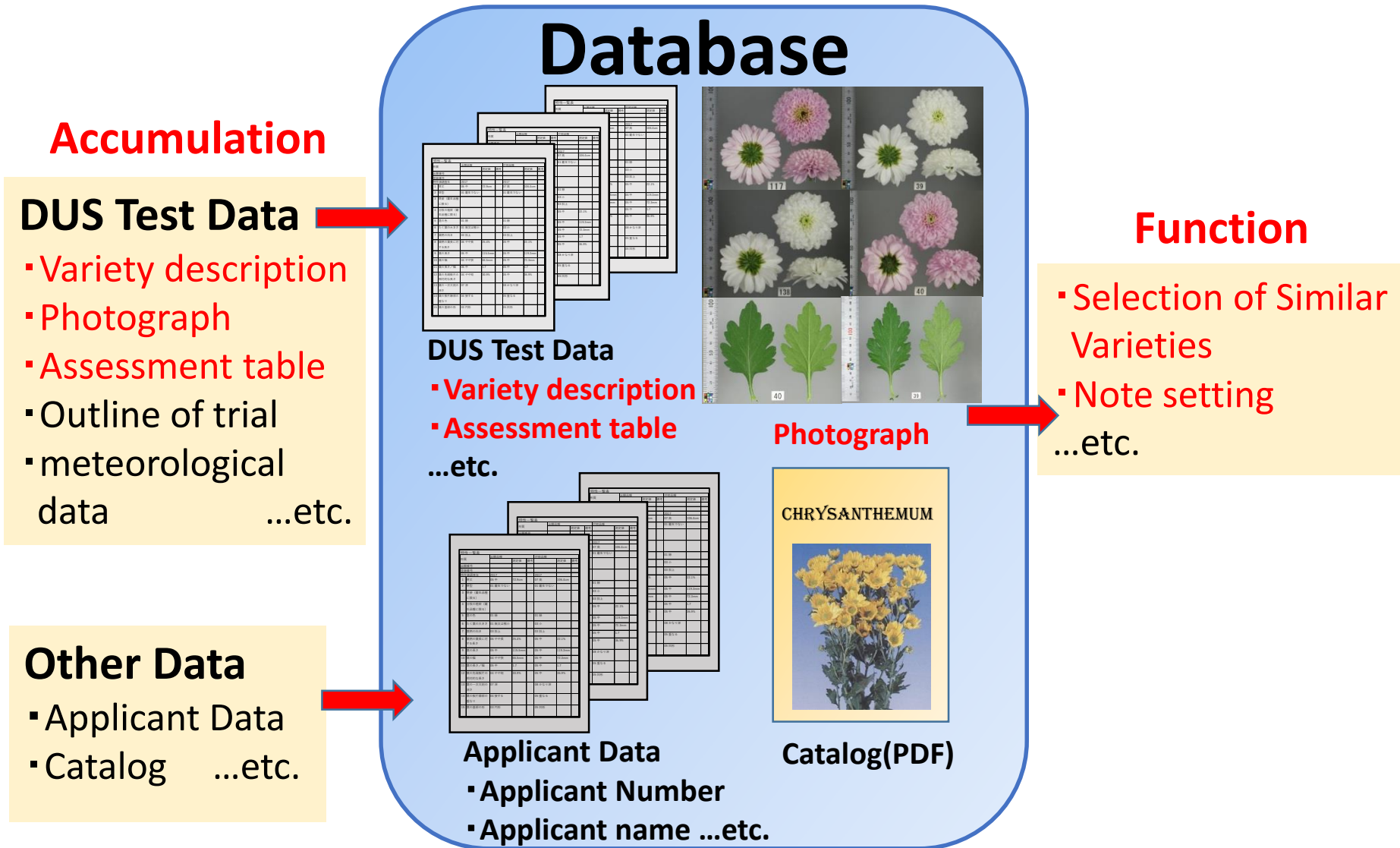
2016

2017

You should take **a consistent photograph of the composition**.
Because maintaining consistency of composition, photos used
in DUS tests can **be easily used to variety comparisons** well into
the future.

2. Function of Database

Data accumulation and utilizing



Selection of Similar Varieties



Candidate Variety

Plant height: tall

Leaf color of upper side:
dark green

Flower color: vivid yellow
disk color: green

Flowering time: middle of
September



If **only the image of catalog or website**, which variety would you select as similar variety ?

Selection of Similar Varieties

If you **accumulate DUS test data** in the database...



Candidate Variety

Plant height: tall
 Leaf color of upper side: dark green
 Flower color: vivid yellow
 disk color: green
 Flowering time: middle of September



Variety A

Plant height: **short**
 Leaf color of upper side: **green**
 Flower color: vivid yellow
 disk color: green
 Flowering time: middle of September



Variety B

Plant height: tall
 Leaf color of upper side: dark green
 Flower color: vivid yellow
 disk color: green
 Flowering time: **middle of August**



Variety C

Plant height: tall
 Leaf color of upper side: dark green
 Flower color: vivid yellow
 disk color: green
 Flowering time: middle of September

3. Database (In case of Japan)

Database in Japan (VIPS and GAPS)



Variety registration data Integrated Portal System

Plant Variety Protection Office MAFF of JAPAN



VIPS

(**V**ariety registration data **I**ntegrated **P**ortal **S**ystem
Plant Variety Protection Office MAFF of Japan)



DUS
Growing test data Analysis Portal System

計画 ⊕	対照品種 選定 ⊕	問題点報告 ⊕	報告書 ⊕	審査基準 個別マニュアル ⊕	New 国際関係 研修情報 QMS文書 ⊕	施設ほ場 管理 ⊕	関連リンク ⊕
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GAPS

(DUS **G**rowing test data **A**nalysis **P**ortal **S**ystem NCSS Data Base)

VIPS

- **Application data**

Application number, Candidate variety name, Scientific name...

- **Registered varieties data**

Variety description, Photograph...

- **Progress management information**

Date of DUS test started, Date of DUS test report...

...etc.

GAPS

- **For making DUS test plan**

Application number, Test place, Date of DUS test started, Facility and field management ...

- **For selection of Similar Varieties**

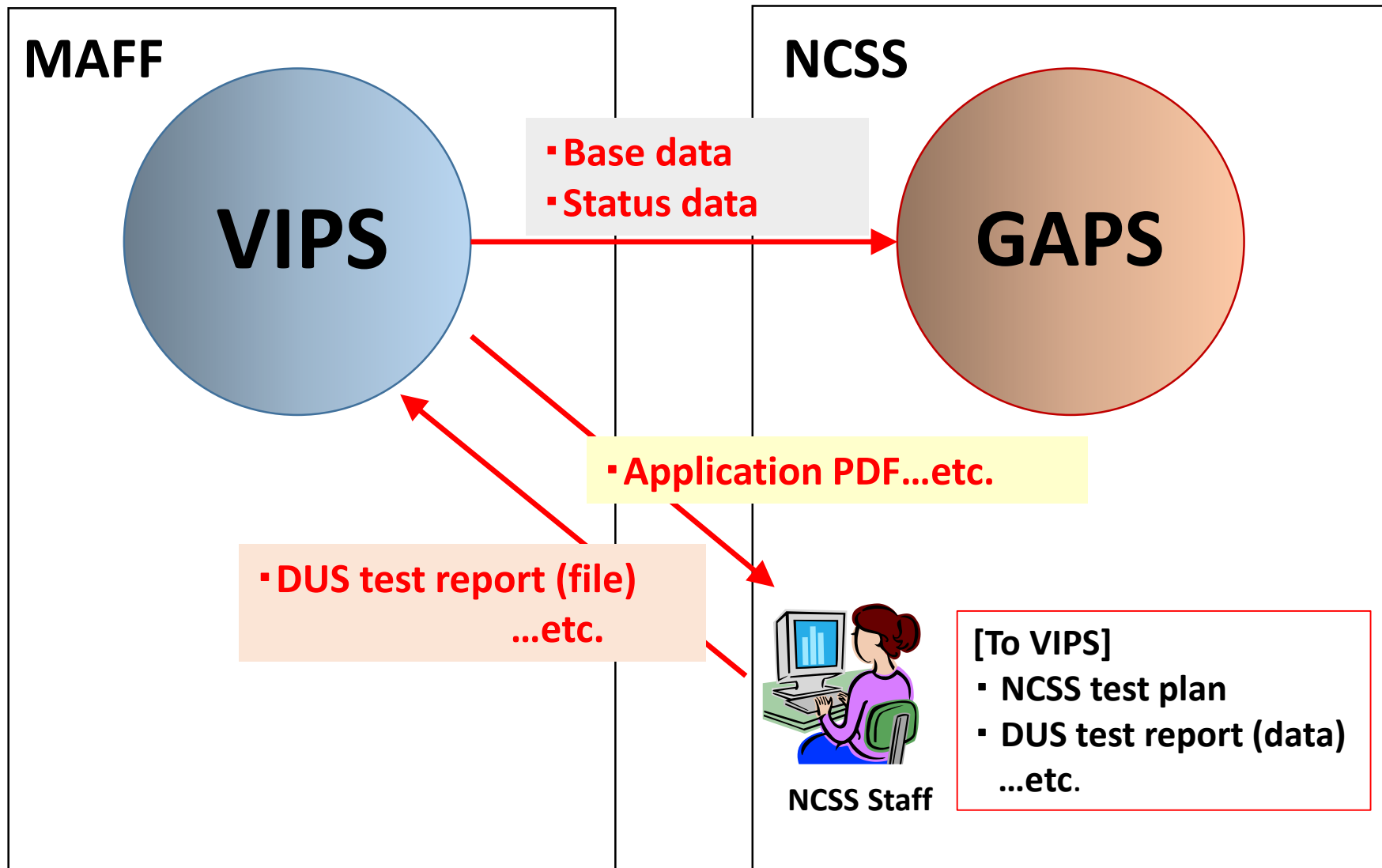
Registered varieties data, Catalog(PDF), Photograph ...

- **Management of Reference Collection**

Varieties name, Storage place...

...etc.

Relationship between VIPS and GAPS



4. Function of GAPS (NCSS Database)

composition

GAPS

Selection of Similar Varieties

DUS test report

International relations
Training information
QMS sentences

Links

計画 ➤	対照品種 選定 ➤	問題点報告 ➤	報告書 ➤	審査基準 個別マニュアル ➤	New 国際関係 研修情報 QMS文書 ➤	施設ほ場 管理 ➤	関連リンク ➤
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DUS test plan
Reference Collection

Problem report

TG and Manual

management of
facilities and fields





DUS test plan

種類 (和名)	出願番号	品種名称	提出	計画年度	計画期	計画場所	種苗種類(発芽率%)	提出数量	受領開始日	受領終了日	開始予定	終了予定	区	株	反復
稲種	xxxxxx	Japan1	--	2018	1	西日本	品種登録種子(100)	300 g	2018/2/7	2011/2/10	Mar-11	Dec-11	1	100	2
稲種	xxxxxx	Japan2	--	2018	1	西日本	品種登録種子(93)	300 g	2011/1/7	2011/2/10	Mar-11	Dec-11	1	100	2
稲種	xxxxxx	Japan3	--	2018	1	西日本	品種登録種子(93)	300 g	2012/2/13	2012/2/17	Mar-12	Dec-12	1	100	2
稲種	xxxxxx	Japan4	--	2018	1	西日本	品種登録種子(88)	300 g	2011/2/7	2011/2/10	Mar-11	Dec-11	1	100	2

Facility and field management

場所	施設名称	施設面積 (㎡)	使用面積 (㎡)	植物名	使用開始日	使用終了日	2018											
							1	2	3	4	5	6	7	8	9	10	11	12
本所	B温室	97	27		Apr-15	Mar-16	■	■	■									
本所	B温室	97	20		Sep-15	Aug-16	■	■	■	■	■	■	■	■				
本所	C温室	153	58		Apr-15	Mar-16	■	■	■									
本所	C温室	153	11		May-15	Jun-16	■	■	■	■	■							
本所	C温室	153	62		Sep-15	May-16	■	■	■	■	■							
本所	C温室	153	18		Oct-15	Sep-16	■	■	■	■	■	■	■	■	■			
本所	E温室	137	37		Apr-15	Mar-16	■	■	■									
本所	E温室	137	2		Jan-15	Jun-16	■	■	■	■	■							
本所	E温室	137	4		Apr-16	Feb-17				■	■	■	■	■	■	■	■	■
本所	F温室	137	137		Sep-15	Jul-16	■	■	■	■	■	■						

Selection of Similar Varieties

Botanical name	status	Application number	granted number	Variety denomination	Commercial name	where to get	Material form	quantity	Information	Photograph
chrysanthemum	Example variety	99999		Japan1	nippon1	Reference Collection (Tsukuba)	unrooted cuttings	20	Plant: type non bushy Flower head: type double	
Botanical name	status	Application number	granted number	Variety denomination	Commercial name	Name of applicant	Material form	quantity	Information	Photograph
chrysanthemum	Candidate variety	20003		Japan8		KAWADA	unrooted cuttings	20	Plant: type non bushy Flower head: type double	
Botanical name	status	Application number	granted number	Variety denomination	Commercial name	where to get	Material form	quantity	Information	Photograph
chrysanthemum	Smilar variety	20001		Japan6	Nippon6	A company	unrooted cuttings	20	Plant: type non bushy Flower head: type double	
chrysanthemum	Smilar variety	20002		Japan7	Nippon7	B company	unrooted cuttings	20	Plant: type non bushy Flower head: type double	

Management of Reference Collection

Botanical name	Variety Name	Application number	Granted number	Preservation place	where to get	Preservation start date	Preservation end date	Rank	Number of Preservation	other
chrysanthemum	Nippon01	991001	99801	Nishi-Nihon Stn.	A seed company	2004/12/1		A	3	Example variety
chrysanthemum	Nippon02	991002		Nishi-Nihon Stn.	A seed company	2009/12/1		A	3	Example variety
chrysanthemum	Nippon03	991003		Nishi-Nihon Stn.	B seed company	2009/12/1		A	3	Example variety
chrysanthemum	Tsukuba01	995001	994502	Nishi-Nihon Stn.	B seed company	1992/7/14	1999/9/12	B	3	
chrysanthemum	Tsukuba02	995002		Nishi-Nihon Stn.	C seed company	1996/6/30		B	3	
chrysanthemum	Tsukuba03	599005		Nishi-Nihon Stn.	C seed company	1997/6/30		B	3	

Reference Collection

- Refers to a variety to **be used as a Similar variety or Example variety** necessary for the examination of the Candidate variety.
- It is called a variety that **collects, preserves and propagates seeds and other plants** aiming to be used for DUS growing tests.

Thank you very much for your attention

