Selection of Example Varieties in NCSS

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   (in case of NCSS)

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1．Actual situation in making TG in NCSS

1．Actual situation in making TG in NCSS

Japan already have national TGs about a lot of major plant species.
(about 640)

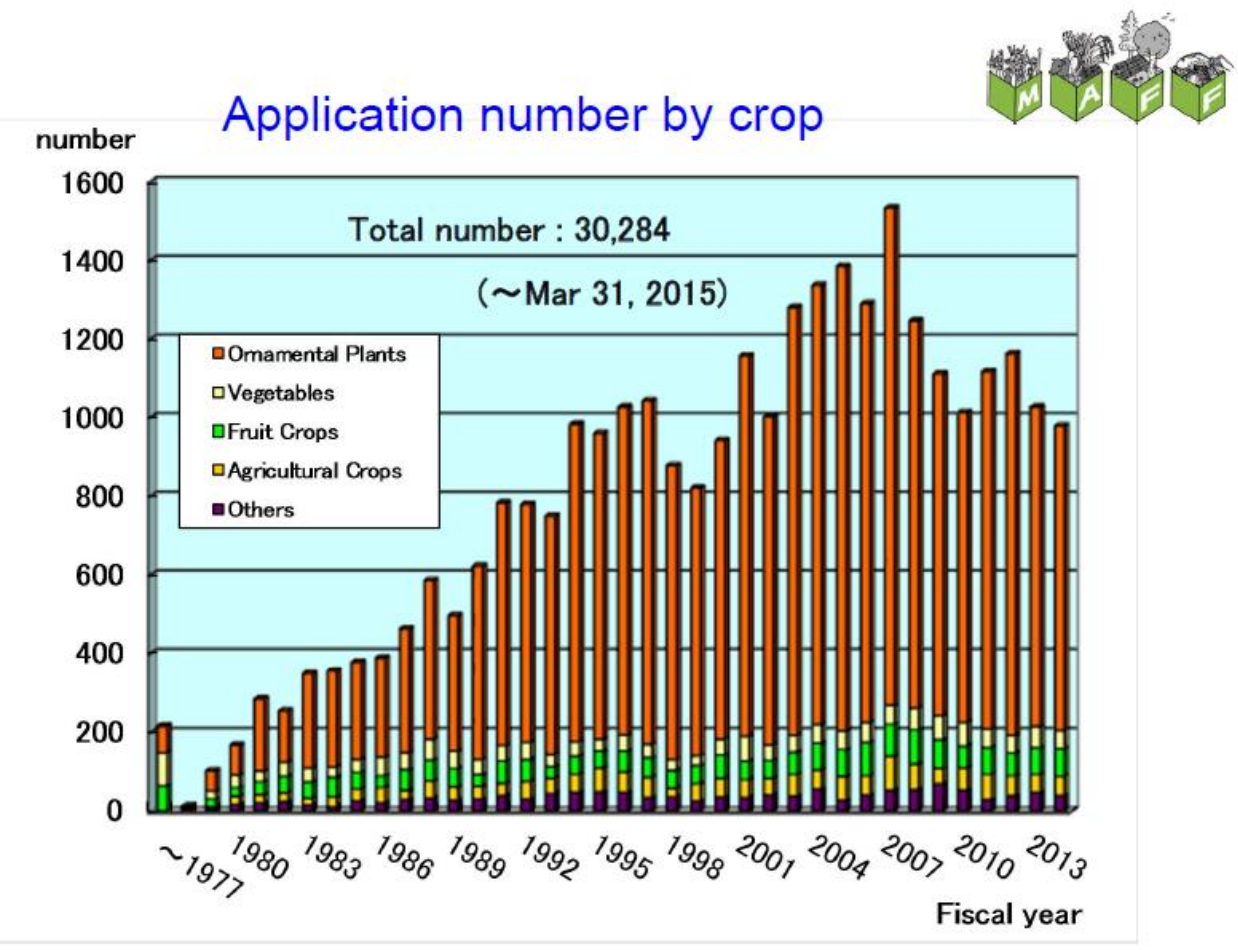
- We make new TGs mainly for minor plant species today.

1. Actual situation in making TG in NCSS

- We make about 10 TGs every year.
- Differently from major plant, information on minor plant is very few.
- It is very important to collect information before making TG.

(books, literature, breeder, seed company…)

1．Actual situation in making TG in NCSS



- Most of new TGs are for ornamental plants.

2．how to set up Example Varieties (in case of NCSS)

2. how to set up Example Varieties (in case of NCSS)

- Necessity of example varieties

No need

- A characteristics not influenced by the year or environment (QL characteristics)

Need

- A characteristics influenced by the environment (most QN and PQ characteristics)

  QN: at least two states of expression should be provided

  PQ: to provide a set of example varieties to cover the different types of variation within the range of expression of the characteristics

2. how to set up Example Varieties (in case of NCSS)

- Criteria for example variety

  - ✓ Well known material freely and easily accessible,
  - ✓ All desired states of expression should be covered with the minimum number of example varieties
  - ✓ Expression must not change significantly with environment
  - ✓ Should be uniform and stable, widely and freely available , easy to maintain

2． How to set up Example Varieties (in case of NCSS)

Step1: Collecting the data

Pilea (foliage plant) Leaf: length　QN

Variety A

Leaf length: 2.6cm

Variety B

Leaf length: 5.3cm

Variety C

Leaf length: 9.0cm

Variety D

Leaf length: 5.0cm

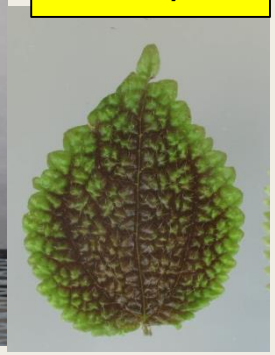
Step2: Setting up varieties to notes

Pilea (foliage plant) Leaf: length QN

Variety A

Leaf length: 2.6cm (Min)

Variety C



Leaf length: 9.0cm (Max)

Check the value range of the characteristics on the plant species
(2.6～9.0cm)

How much notes are needed?
9? 5? 3?

Step2: Setting up varieties to notes

Pilea (foliage plant) Leaf: length QN

(Use 9 notes)

Variety A

Set to note 3

Leaf length: 2.6cm (Min)

Variety C

Set to note 7

Leaf length: 9.0cm (Max)

Step2: Setting up varieties to notes

Pilea (foliage plant) Leaf: length

	3	4	5	6	7
Example variety	A 2.6cm				C 9.0cm

4notes

calculate distance range

9.0cm−2.6cm＝6.4cm
6.4cm/4＝1.6cm
→distance range is 1.6cm

Step2: Setting up varieties to notes

Pilea (foliage plant) Leaf: length

	3	4	5	6	7
Example variety	A 2.6cm				C 9.0cm
distance range	1.6	1.6	1.6	1.6	1.6
median	2.6				9.0
range	1.8–3.4				8.2–9.8

- Setting notes

  Calculate the range of note 3, as variety A is middle of note 3.
  Calculate the range of note 7, as variety C is middle of note 7.

  Calculate the range of each note.

2． how to set up Example Varieties
(in case of NCSS)

Step2: Setting up varieties to notes

Pilea (foliage plant) Leaf: length QN

Variety A

Leaf length: 2.6cm
Note 3

Variety B

Leaf length: 5.3cm
Note 5

Variety C

Leaf length: 9.0cm
Note 7

Variety D

Leaf length: 5.0cm
Note 5

Step3: Confirming the data

Pilea (foliage plant) Leaf: length QN

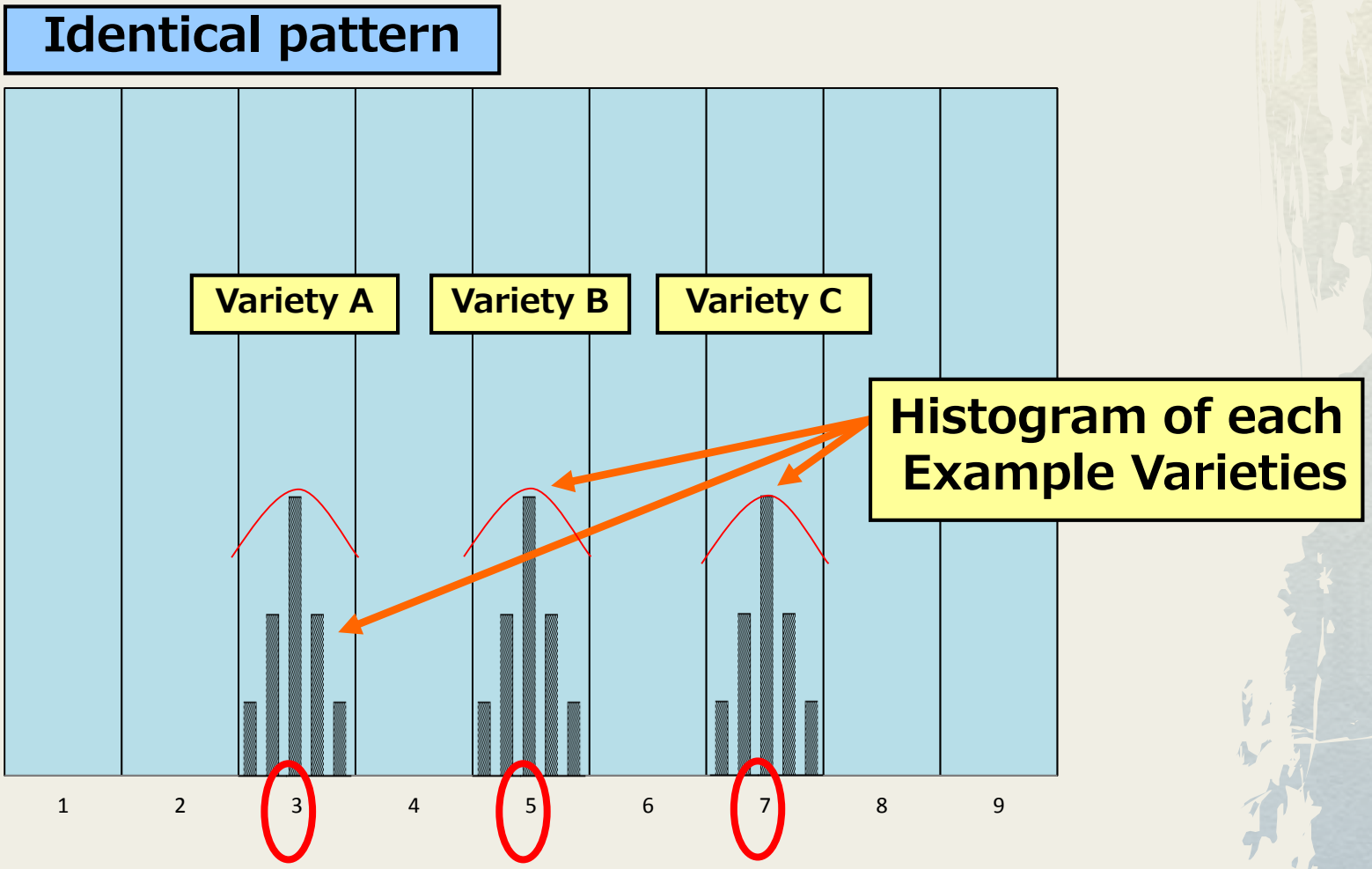
	Variety A	Variety B	Variety C	Variety D
Note (1st year)	3	5	7	5
Note (2nd year)	3	5	7	4
	Stable	Stable	Stable	Not stable?

Suitable for Example Varieties

Notice: check the distance range

- After setting notes, check the distance range and SD (standard deviation) in existing varieties.
- If SD in existing varieties is bigger than the distance range, adjust note setting.

Notice: check the distance range



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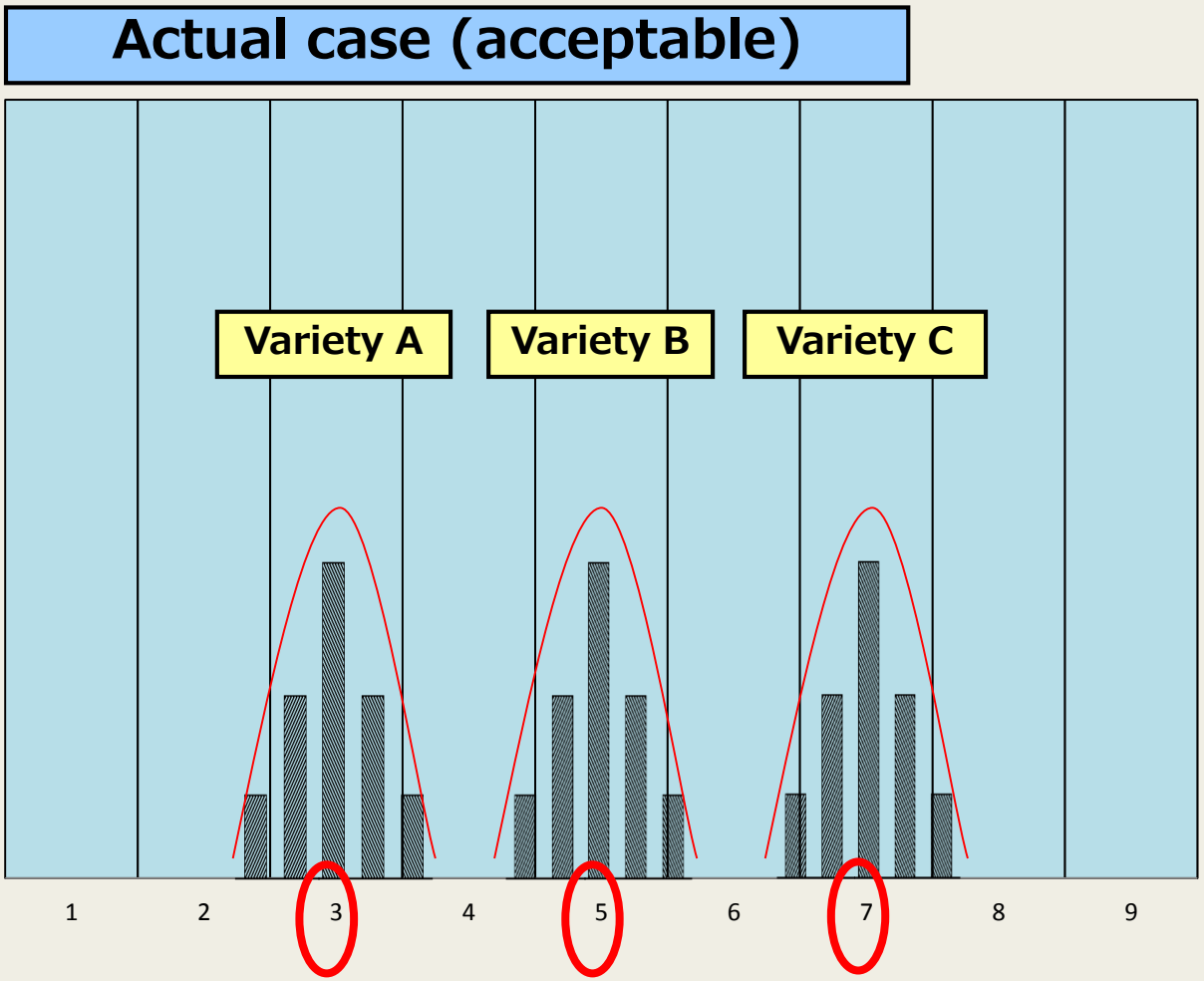

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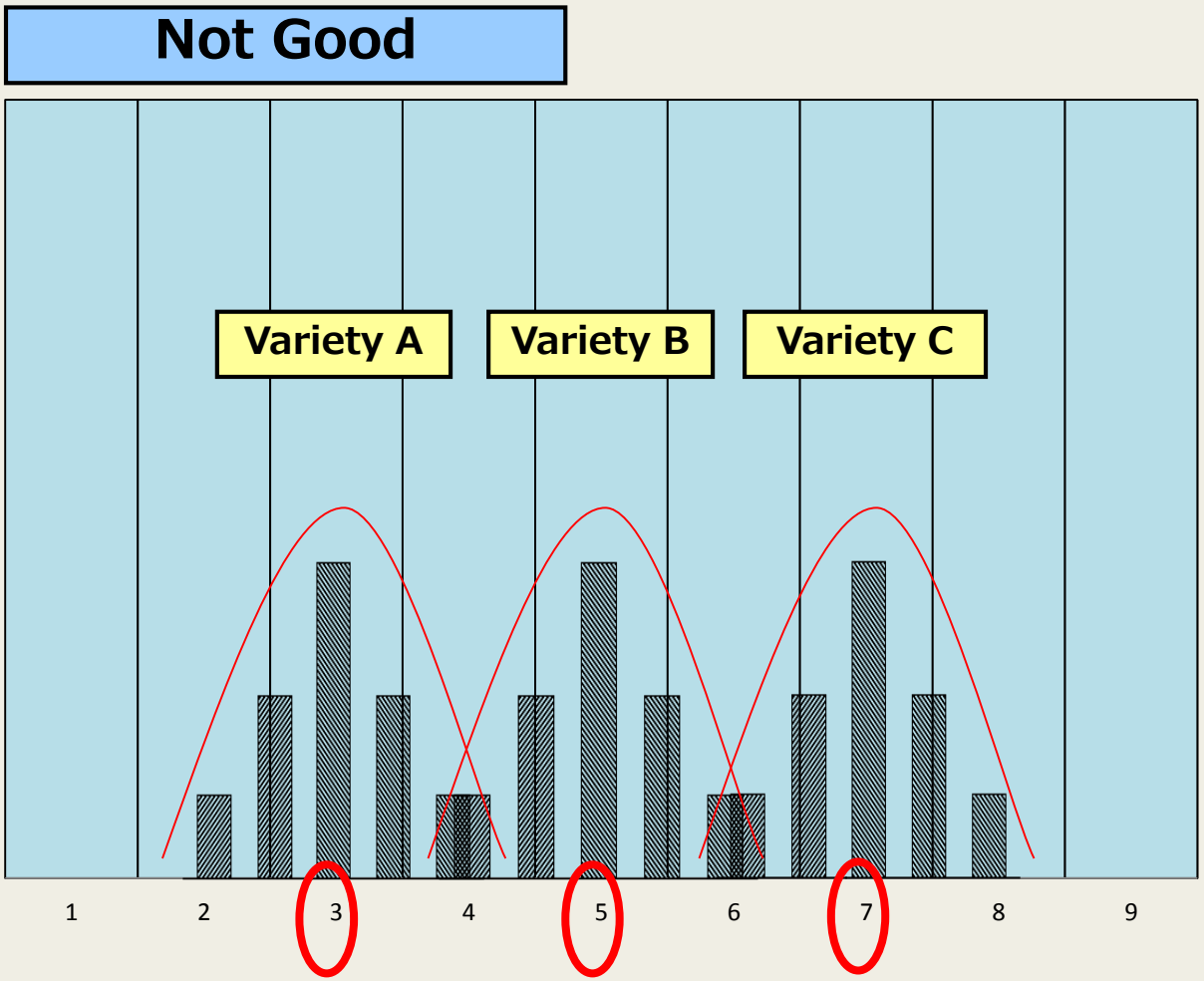

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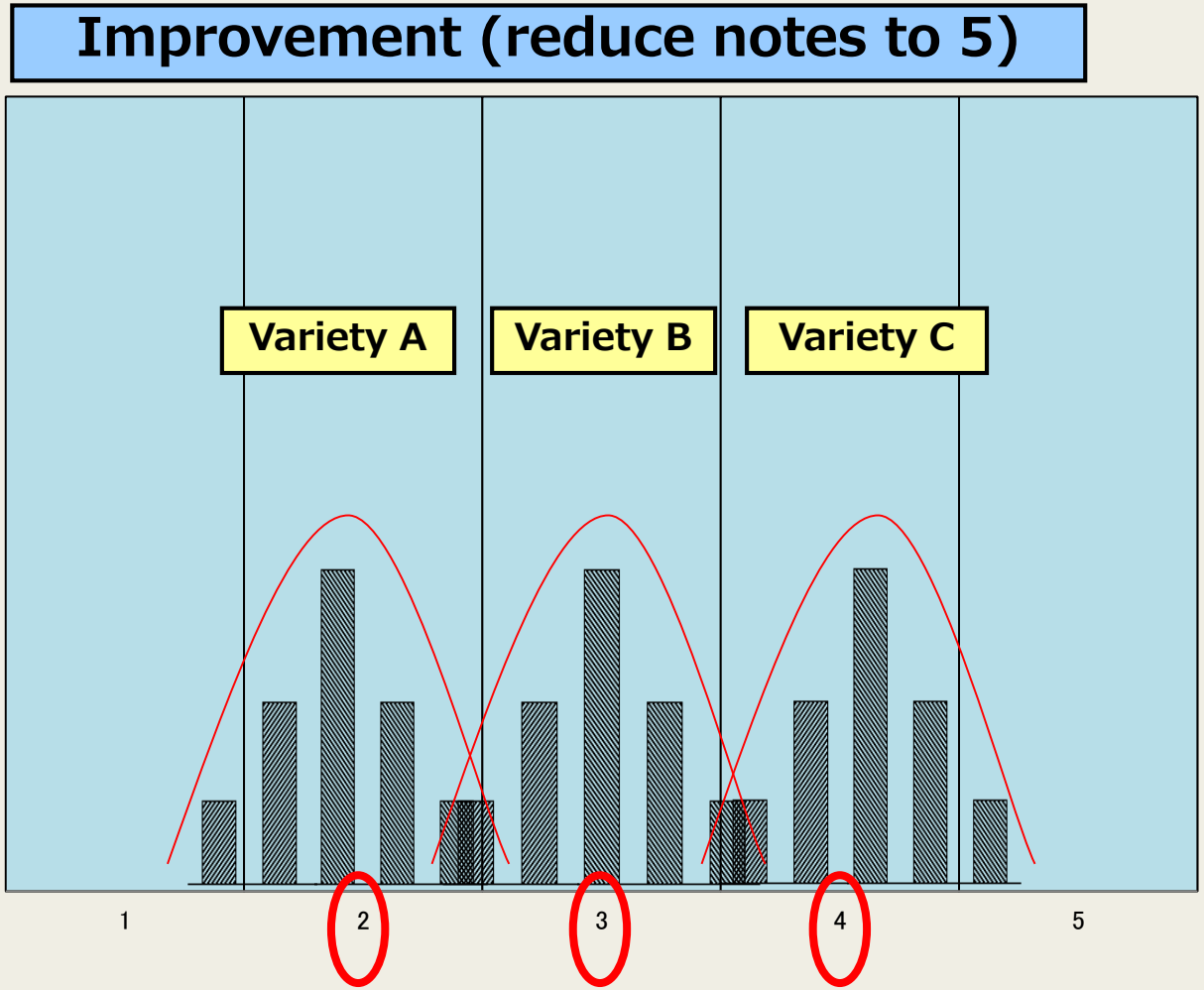

3. Renewal of Example Varieties

3．Renewal of Example Varieties

- On ornamental plants, the cycle of new variety is much shorter than crops (in some cases, 3-4 years).
- Sometimes an example variety become unavailable.
- In such situation, we add (or change) Example Varieties. We select new ones from varieties which have been grown in the past DUS tests.
- The way in which we choose new example varieties is same as making TG.

  (more than 3 years is needed to confirm the data)

Thank you for your attentions.

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