

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



The screenshot shows the website for the Plant Variety Protection Office at MAFF, Japan. It features a navigation menu on the left with links to various sections. The main content area displays a table of Botanical taxon (A), Remarks, Test Guideline, and Characteristic Table (Japanese Only). The table lists several species, including Abelia R. Br., Abelmoschus esculentus (L.) Moench, Abies sachalinensis (F. Schmidt) Mast., Abutilon Mill., Acacia baileyana F. Muell., Acacia cognata Domin, Acalypha chamaedrifolia (Lam.) Mull. Arg., Acalypha wilkesiana Mull. Arg., Acer L., Achillea L., and Achillea ptarmica L. The table also includes links to PDF files and word documents for each species.

Botanical taxon (A)	Remarks	Test Guideline	Characteristic Table (Japanese Only)
Abelia R. Br.		PDF	word Ichitaro
Abelmoschus esculentus (L.) Moench	(NEW)	PDF	
Abies sachalinensis (F. Schmidt) Mast.		PDF	word Ichitaro
Abutilon Mill.		PDF	word Ichitaro
Acacia baileyana F. Muell.	(NEW)	PDF	
Acacia cognata Domin	(NEW)	PDF	
Acalypha chamaedrifolia (Lam.) Mull. Arg.	(NEW)	PDF	
Acalypha wilkesiana Mull. Arg.	(NEW)	PDF	
Acer L.		PDF	word Ichitaro
Achillea L.	(NEW)	PDF	
Achillea ptarmica L.	(NEW)	PDF	

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



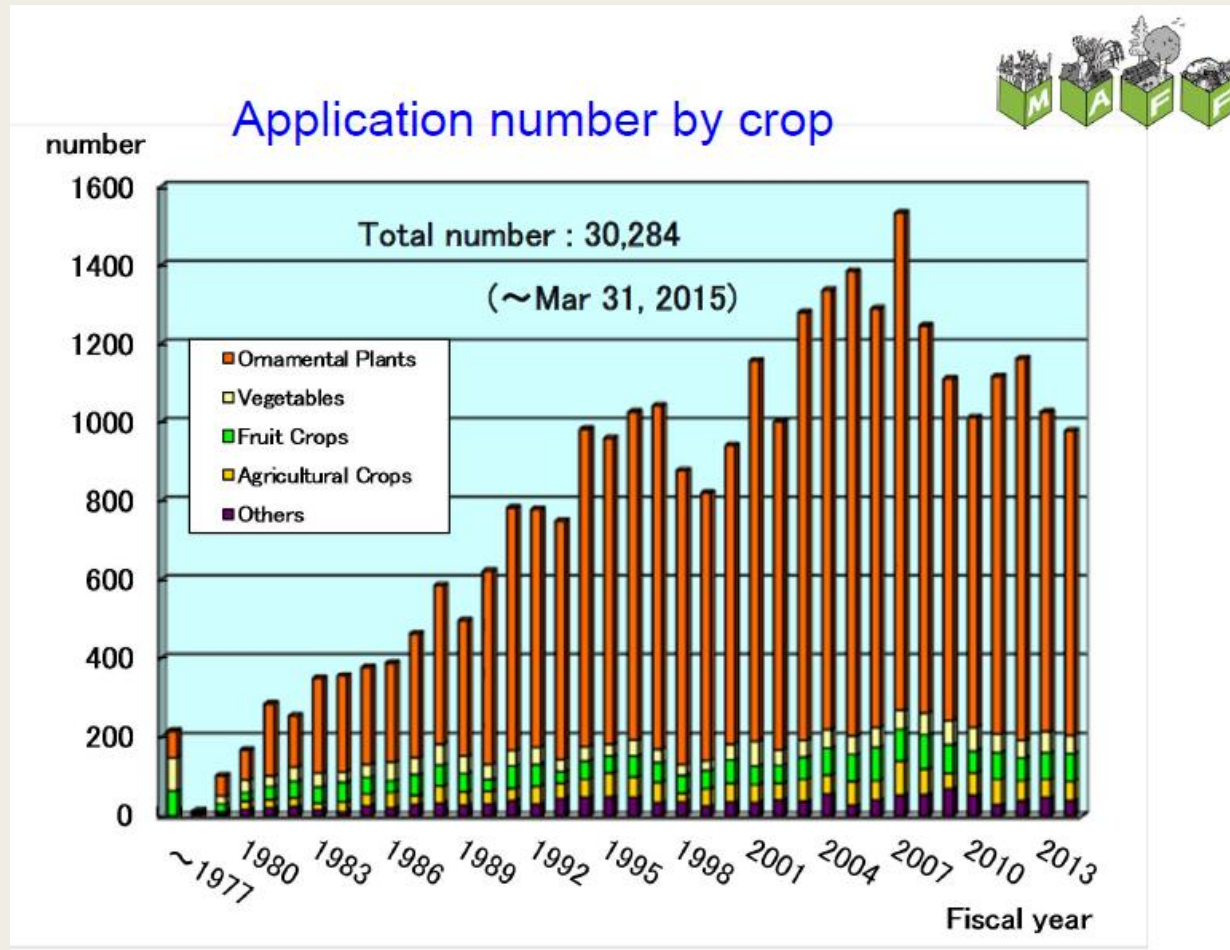
- ◆ We make new TGs mainly for minor plant species today.

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

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 (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?

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

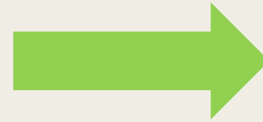
Step2: Setting up varieties to notes

Pilea (foliage plant) Leaf: length QN

(Use 9 notes)



Variety A

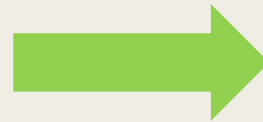


Set to note 3

Leaf length: 2.6cm (Min)



Variety C



Set to note 7

Leaf length: 9.0cm (Max)

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

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

$$9.0\text{cm} - 2.6\text{cm} = 6.4\text{cm}$$

$$6.4\text{cm} / 4 = 1.6\text{cm}$$

→distance range is 1.6cm

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

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

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

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			Not stable?



Suitable for Example
Varieties

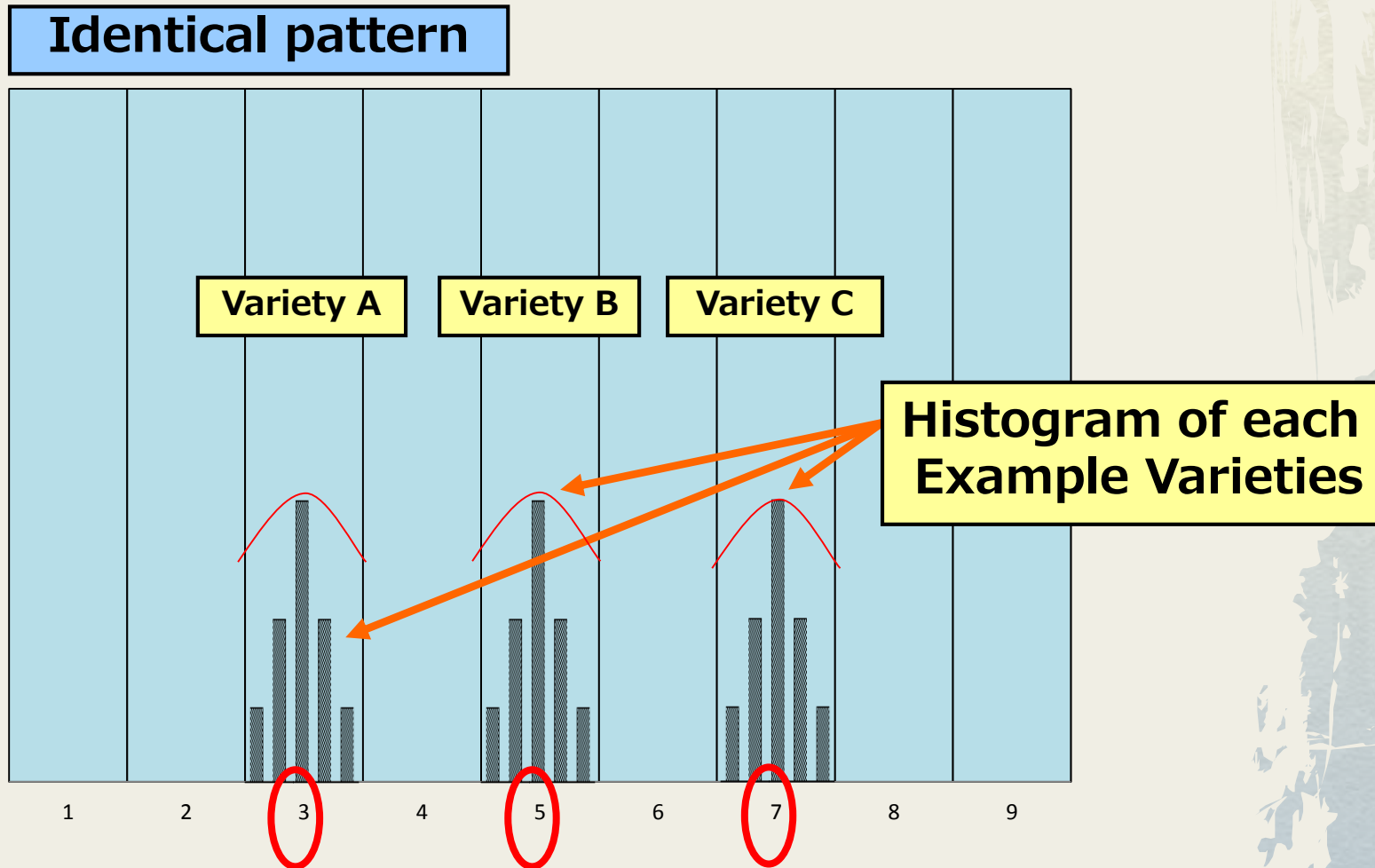
2. how to set up Example Varieties (in case of NCSS)

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.

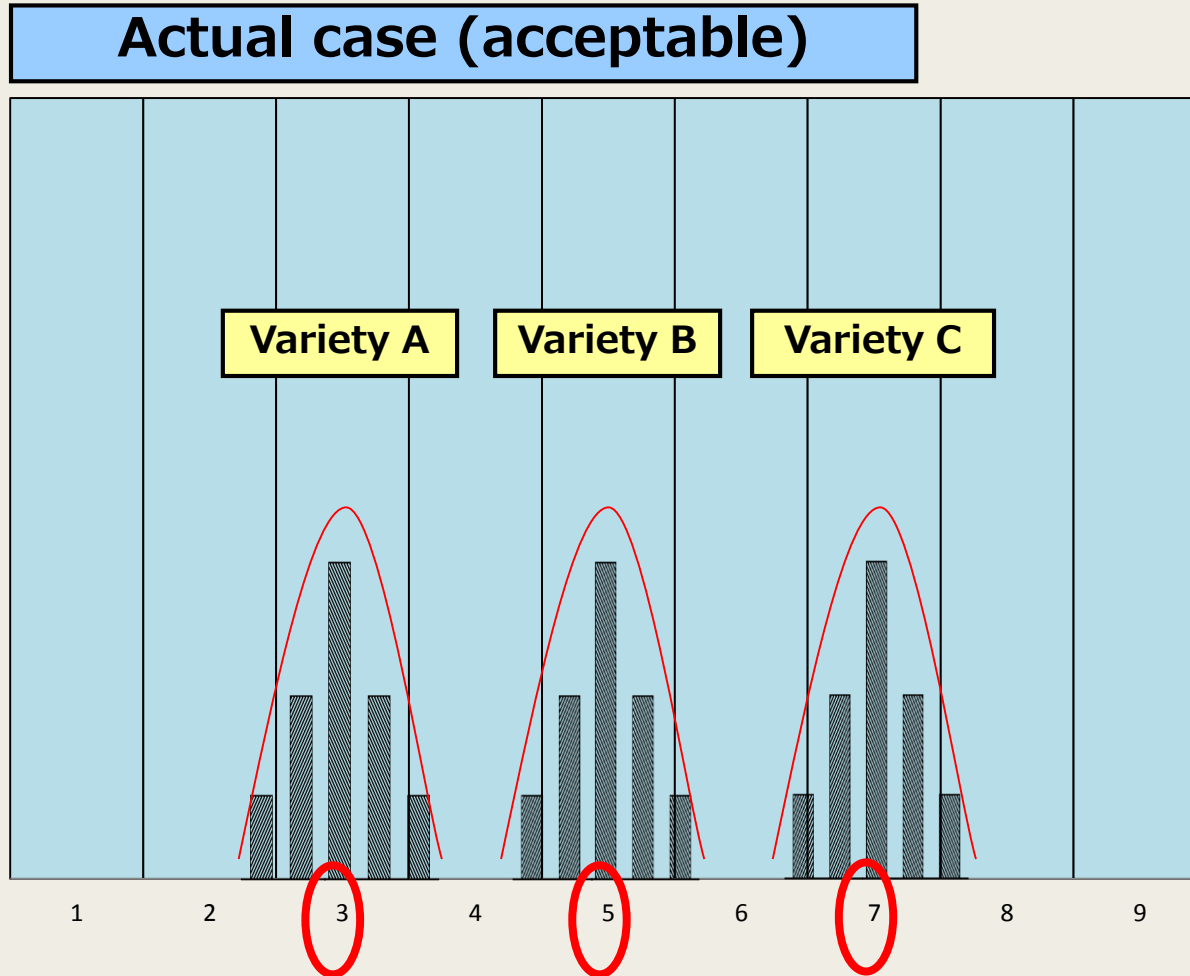
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Notice: check the distance range



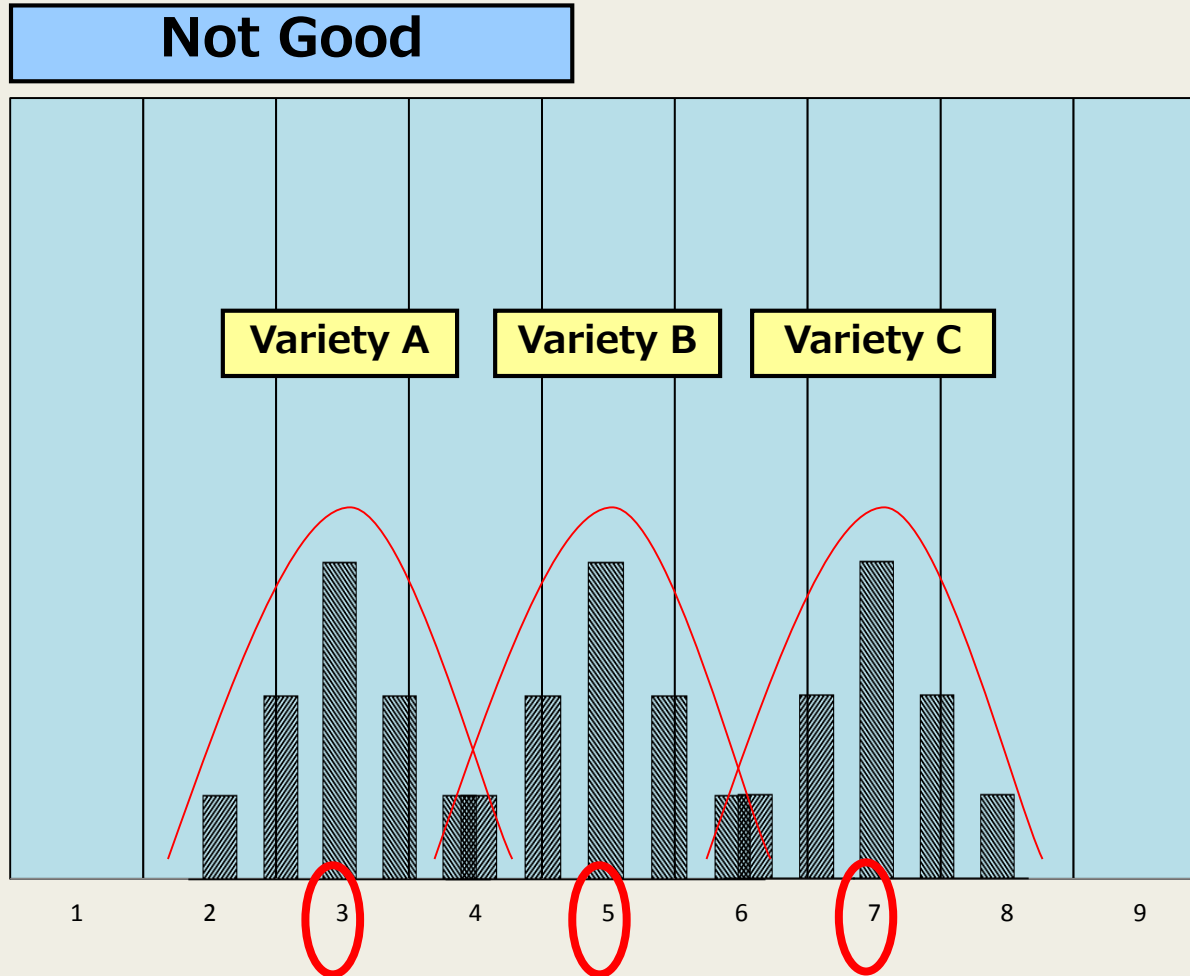
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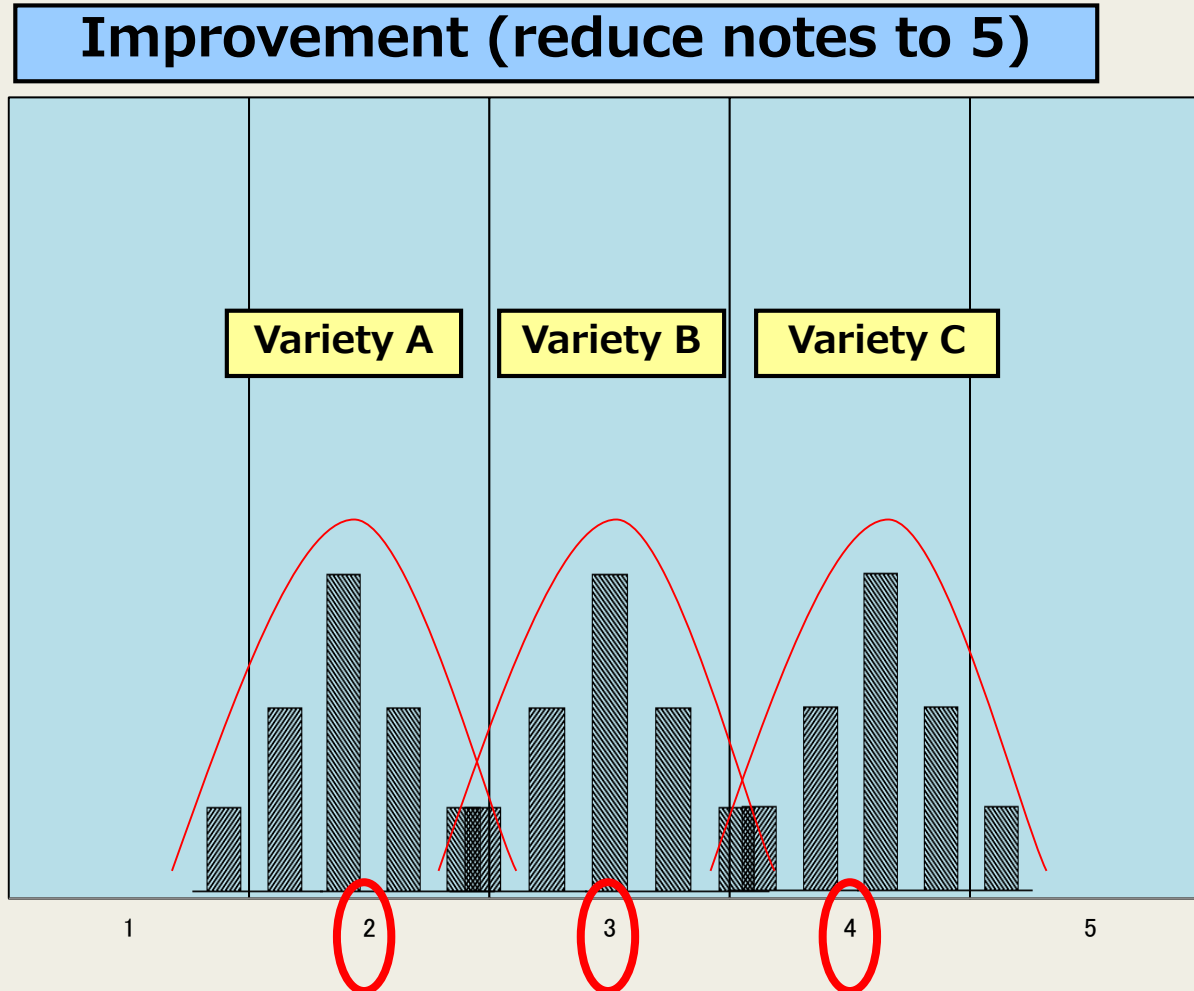
2. how to set up Example Varieties (in case of NCSS)

Notice: check the distance range



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

Notice: check the distance range



3 . Renewal of Example Varieties

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- ◆ 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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