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**Methods of management used in the DUS examination
for transformation of observations and measurements
into notes for distinctness and for variety descriptions**

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Plant Variety Protection

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Selection of similar varieties

☐ Examiner selects similar varieties as comparing varieties based on ;

○ Information provided in Technical Questionnaire
 - similar variety claimed by applicant
 - variety description

○ Database : protected varieties, reference varieties …

☐ In case that DUS examiner find out more similar varieties on the
 basis of experience or any other information, additional comparing
 varieties can be included in trial after consultation with examiner

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Determination of State

Transformation of Observations with example variety

- State will be decided by using state of example variety

Transformation of Observations without example variety

- With knowledge of whole range;
  by using total difference divide by no. of state

- Without knowledge of whole range;
  by using LSD value(1%)

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Example 1: Sweet pepper, fruit: diameter(TG/76/8, Char. 26)

Crop expert has knowledge the whole variation of the known varieties.

- All 9 notes could be used for reasonable description range

- More wide(or narrow) varieties might be developed in near future

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66 varieties in the trial, 3 X 7 records per variety

No. of Variety	66
Max. variety	35.8
Min. variety	13.2
Difference	22.6
Mean of all var.	24.5

State 5 is medium in normal distribution

Width of State 5 = 23.3~25.8cm
[24.5 ± 1.25(2.5 ÷2)]

LSD(1%) 2.54 = 2.5cm
Width of state: 2.51(22.6÷9)

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66 varieties in the trial, 3 X 7 records per variety

- Minimum difference = 2.5cm width of states

State	From ~ to
1	12.9 ~ 15.4
2	15.5 ~ 18.0
3	18.1 ~ 20.6
4	20.7 ~ 23.2
5	23.3 ~ 25.8
6	25.9 ~ 28.4
7	28.5 ~ 31.0
8	31.1 ~ 33.6
9	33.7 ~ 36.2

The number of notes has to be defined by **the crop expert** according to the smallest appropriate difference

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Example 2: Sweet pepper, leaf: width of blade(TG/76/8, Char. 12)

Crop expert has knowledge the only part of the known varieties.

- Under consideration of minimum difference, 5 notes could be used

  for reasonable description range

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66 varieties in the trial, 3 X 7 records per variety

No. of Variety	66
Max. variety	7.47
Min. variety	4.32
Difference	3.15
Mean of all var.	6.13

To use less than 9 notes between max. and min. variety

Width of State 5 = 5.7~6.5cm
[6.13 ± 0.4(0.8/2)]

LSD(1%) 0.85 = 0.80cm
Width of state: 0.63(3.15÷5)

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66 varieties in the trial, 3✕7 records per variety

- Minimum difference = 0.8cm width of states

State	From ~ to
1	2.1 ~ 2.9
2	3.0 ~ 3.8
3	3.9 ~ 4.7
4	4.8 ~ 5.6
5	5.7 ~ 6.5
6	6.6 ~ 7.4
7	7.5 ~ 8.3
8	8.4 ~ 9.2
9	9.3 ~ 10.1

The number of notes has to be defined by the crop expert according to number of notes for reasonable description range

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Thank You for your attentions!

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