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## SHORT EXPLANATION ON SOME UNITED KINGDOM METHODS FOR DATA PROCESSING FOR THE ASSESSMENT OF DISTINCTNESS AND FOR PRODUCING VARIETY DESCRIPTIONS FOR MEASURED QUANTITATIVE CHARACTERS

*Document prepared by experts from the United Kingdom*

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1. When the content of Annex IV to document TWP/1/15 "Data Processing for the assessment of distinctness and for producing variety descriptions" was presented to TWPs in 2016, experts from the United Kingdom realized that some revision of the content was necessary. The following is the revised content. The experts from the United Kingdom propose that the following replaces the content of Annex IV to document TWP/1/15.

2. These two methods are only for characteristics which are measured and quantitative.

(a) The delineating varieties method using herbage as an example:

Over-year variety means are calculated from the yearly trial means. Trial means from the past 10 years' trials are used for herbage crops. The over-year means are calculated using a fitted constants analysis; this allows for varieties not being present in every year. Finally, the over-year means are converted to notes. For herbage crops this is done by use of delineating varieties chosen by crop expert judgement and are based on the notes for example varieties. Delineating varieties differ from example varieties. A delineating variety defines each upper (or lower) intervening limit of the states within the range of expression. By contrast, an example variety usually represents the typical or mid-interval expression of each state within the range of expression.

(b) The equal spaced notes method using field peas as an example:

Over-year variety means are calculated from the yearly trial means. Trial means from all years where the reference collection varieties have been tested are used for peas. The over-year means are calculated using a fitted constants analysis; this allows for varieties not being present in every year. Finally, the over-year means are converted to notes. For peas this is done so that the states are equally spaced.

3. Both methods use over-year means to minimise any observed variation in varieties due to differences in years. In effect, reference varieties (including example varieties) remain the same note year on year.

4. For greater detail of these two methods and worked examples, see TWC/30/32. Please note that the worked examples are based on an artificial data set in order to illustrate the method.

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