S

UPOV

TC/50/22 Add.
ORIGINAL: Inglés
FECHA: 22 de abril de 2014

UNIÓN INTERNACIONAL PARA LA PROTECCIÓN DE LAS OBTENCIONES VEGETALES
Ginebra

COMITÉ TÉCNICO

Quincuagésima sesión
Ginebra, 7 a 9 de abril de 2014

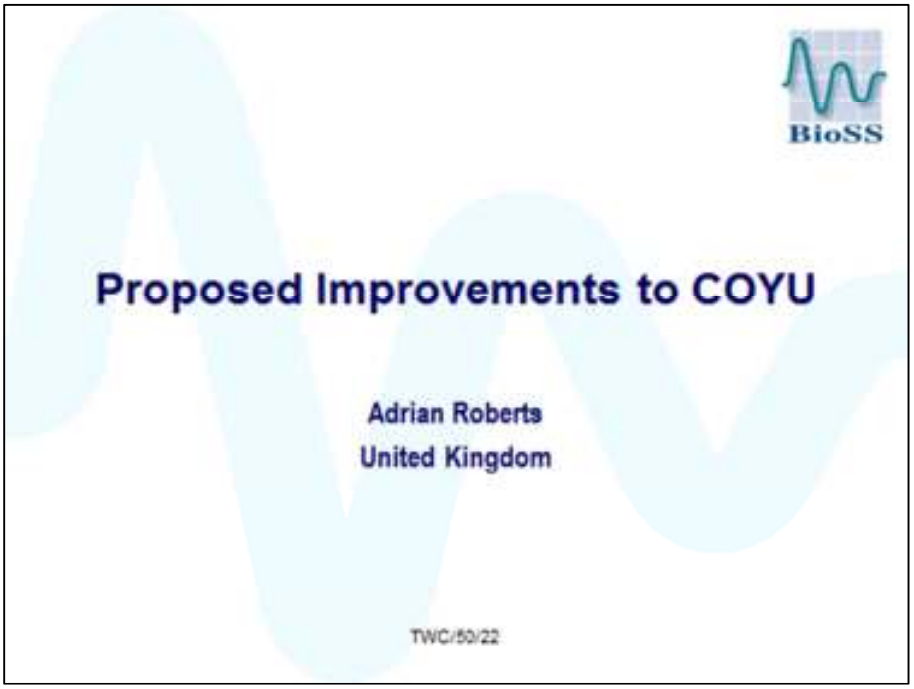
ADENDA

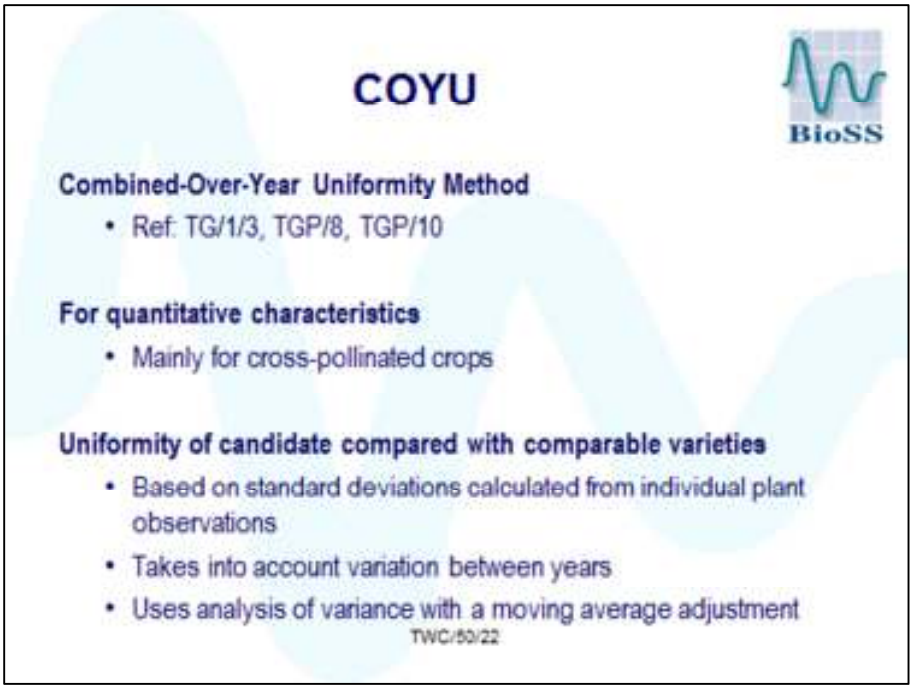
REVISIÓN DEL DOCUMENTO TGP/8: PARTE II: TÉCNICAS UTILIZADAS EN EL EXAMEN DHE, SECCIÓN 9: EL CRITERIO COMBINADO INTERANUAL DE HOMOGENEIDAD (COYU)

Documento preparado por la Oficina de la Unión

El Anexo del presente documento contiene una copia de la ponencia sobre las mejoras propuestas del método COYU (solamente en inglés).

[Sigue el Anexo]

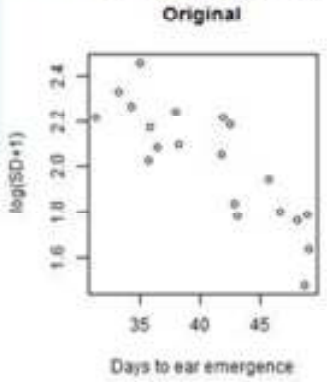

BioSS
Proposed Improvements to COYU
Adrian Roberts
United Kingdom
TWC/50/22


COYU
BioSS
Combined-Over-Year Uniformity Method
• Ref: TG/1/3, TGP/8, TGP/10
For quantitative characteristics
• Mainly for cross-pollinated crops
Uniformity of candidate compared with comparable varieties
• Based on standard deviations calculated from individual plant observations
• Takes into account variation between years
• Uses analysis of variance with a moving average adjustment
TWC/50/22

Adjustment

Variability of measurements often depends on level of expression

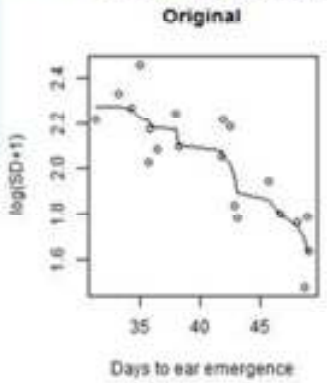
- So an adjustment is used to compensate
- Currently the method used is ***Moving Average***



Adjustment

Variability of measurements often depends on level of expression

- So an adjustment is used to compensate
- Currently the method used is ***Moving Average***

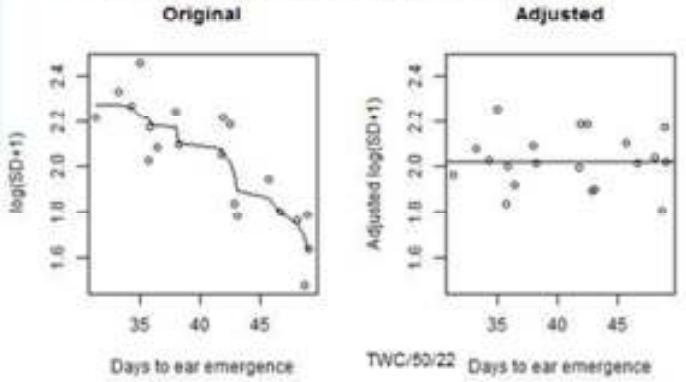


TWC/50/22

Adjustment

Variability of measurements often depends on level of expression

- So an adjustment is used to compensate
- Currently the method used is ***Moving Average***



TWC/50/22

Concern with current COYU method

Shown that the current method rejects more varieties than it should

- In examples in TWC/27/15, rejection rate was more than 2 times expected

This is due to the method of adjustment (moving average)

In practice, this seems to be partially compensated for by use of smaller probability levels than usual

- Typical probability level for COYD is 1%
- Typical probability level for COYU is 0.1%

TWC/50/22

TWC work on improving COYU

Considered various alternative methods of adjustment

- Needs to fit relationships between variation and level of expression well
- No bias problem

Method called "cubic smoothing spline" was found to be suitable

- Flexibility constrained to 4 effective degrees of freedom

This was demonstrated at TWC last year

- *R* software

TWC/50/22

Issues arising

Key issues to deal with:

- **Choice of probability levels**
  - Optimise to match decisions with current approach?
- **When a new variety has a level of expression outside that seen in comparable varieties**
  - Also an issue for the current COYU
- **Minimum number of varieties required for COYU**
  - Easier than with moving average

TWC/50/22

Current work

Developing a demonstration module in DUST

- Plan to demonstrate at TWC in June 2014

Ask TWC members to try on their own data

- Compare with current method

Survey of use of COYU and software

- See Annex III
- 7 members from 11 responding use COYU
- Software: DUST, SAS and GenStat
- Useful information for future guidance

TWC/50/22

Suggested next steps

- **Support from TC in 2014?**
- **Further consideration by TWC in 2014 and 2015**
  - Practical experience
  - Software (DUST and alternatives)
  - Technical issues
  - Consideration of implementation
- **Wider consideration by UPOV (TC etc.)**
  - Agree to replace current COYU with proposal?
  - How to do so?

TWC/50/22

[Fin del Anexo y del documento]