

New book: “Crop Variety Trials—Data Management and Analysis”

Dr. Weikai Yan, ECORC, Agriculture and Agri-Food Canada
960 Carling Ave., Ottawa, ON K1A 0C6, Canada.

Weikai Yan, the oat breeder at ECORC, AAFC, Ottawa, published a book with Wiley in 2014, entitled “Crop Variety Trials—Data Management and Analysis”. This book describes the approaches of data management and analysis he has developed/employed in his oat breeding program and contains the following chapters:

- 1) Theoretical Framework for Crop Variety Trials,
- 2) An Overview of Variety Trial Data and Analyses,
- 3) Introduction to Biplot Analysis,
- 4) Data Centering for Biplot Analysis,
- 5) Data Scaling and Weighting for GGE Biplot Analysis,
- 6) Frequently Asked Questions About Biplot Analysis,
- 7) Single-Trial Data Analysis,
- 8) Genotype-by-Location Two-Way Data Analysis,
- 9) Genotype-by-Trait Data Analysis and Decision-Making,
- 10) Trait Association-by-Environment Two-Way Table Analysis,
- 11) Location-by-Trait Two-Way Data Analysis,
- 12) Mega-environment Analysis Based on Multiyear Data,
- 13) Test Location Evaluation Based on Multiyear Data,
- 14) Genotype Evaluation Based on Multiyear Data,
- 15) Building and Utilizing a Relational Database for Crop Variety Trial Data,
- 16) Experimental Design for Variety Trials and Breeding Nurseries,
- 17) Modules and Functions in GGEbiplot, and
- 18) Conclusions.

The book targets plant breeders generally, but it may be more relevant to oat breeders, as all sample data used in the book were taken from real oat trials conducted in Canada. A review of the book, by Dr. M.S. Kang, was published in Crop Science (Crop Sci 54:2910–2911).

The book can be ordered from this link:

<http://ca.wiley.com/WileyCDA/WileyTitle/productCd-1118688643,subjectCd-LS98.html>.