

Composite Cross Populations of Cereals in Practice: Arguments and Recent Developments in the Legal Framework Revision

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Background

To help deal with the lack of appropriate plant varieties that are adapted to conditions of organic agriculture (e.g. Wolfe et al., 2008), the new COBRA project (Döring et al., 2013, this Symposium) aims to link breeding efforts in pure line breeding with research in the development of Composite Cross Populations (CCPs; Döring et al., 2011). In the meantime, a number of initiatives are already in progress to start this process. To allow the adoption of these approaches in practice, there is an urgent need to adapt the laws concerning varietal registration to extend beyond the current pure line constraint set by the requirement for Distinctness, Uniformity and Stability (DUS), otherwise any form of seed trade involving CCPs will remain illegal. A reformulation of the EU seed law is currently underway. In consultations, European stakeholders have reported satisfaction with the principles underlying the existing Directives but supported simplification and consolidation: thus, the new system as proposed would resemble the present one in many details. However, there is a proposed article, 15 (3), which introduces a space for additional rules allowing production and marketing of varieties not on the Common Catalogue. This means that the Commission could adopt further measures through delegated acts in future years which would allow propagation and marketing of varieties in addition to those within the previous system which do not conform to DUS.

Approach

A series of meetings and discussions involving members of the EU FP7 SOLIBAM (Strategies for Organic and Low Input Breeding and Management) project is in progress with officials in the EU to try to adapt the legal framework with respect to CCPs. In particular, rigorous criteria need to be defined that can replace the DUS system for CCPs. This paper reports on the current state of the discussions and will indicate the likely course and timescale for future progress. Particular focus will be put on the potential to use certified traceability as a process to enable the legal exchange of CCP seed, i.e. to provide the pedigree of a population in terms of how it was produced and its cultivation history since then. A replacement of the DUS would then be the description of the population by its parents, and how it has been maintained since the first crosses.

References

- Döring, T.F., Knapp, S. Kovacs, G., Wolfe M.S. & Murphy, K. (2011) Evolutionary plant breeding in cereals – into a new era. *Sustainability*, 3: 1944-1971.
- Döring, T. F., Baresel P, Borgen A., Finckh, M. R., Howlett, S. A., Ortolani, L., Pearce, B.D., Pedersen, T., Wolfe, M. S. (2013) COBRA: a new European research project for organic plant breeding. (*this Symposium*)
- Wolfe, M. S., Baresel, J. P. Desclaux, D., Goldringer, I., Hoad, S., Kovacs, G., Löschenberger, F., Miedaner, T., Østergård, H., Lammerts van Bueren. E. T. (2008) Developments in breeding cereals for organic agriculture. *Euphytica*, 163: 323-346.