Isabel Blanco-Penedo, Karin Sjöström, Philip Jones, Margret Krieger, Julie Duval, Felix van Soest, Albert Sundrum, Ulf Emanuelson
Swedish University of Agricultural Sciences
Uppsala, Sweden
isabel.blanco.penedo@slu.se

Using MCA to characterize organic dairy farms in Europe

A number of exploratory techniques. Multivariate analysis.

AIM
Identify meaningful typologies across the community of organic dairy farms in Europe based on a battery of farm and farmer descriptors.

CONCLUSION
Three farm typologies (clusters) were identified. **Cluster 1**: Medium herd size farms with moderate use of grazing & moderate intensity of input use. **Cluster 2**: Small scale farms with traditional extensive management. **Cluster 3**: Highly efficient farms with intensive management, but relatively low stocking density (predominantly found in Sweden).
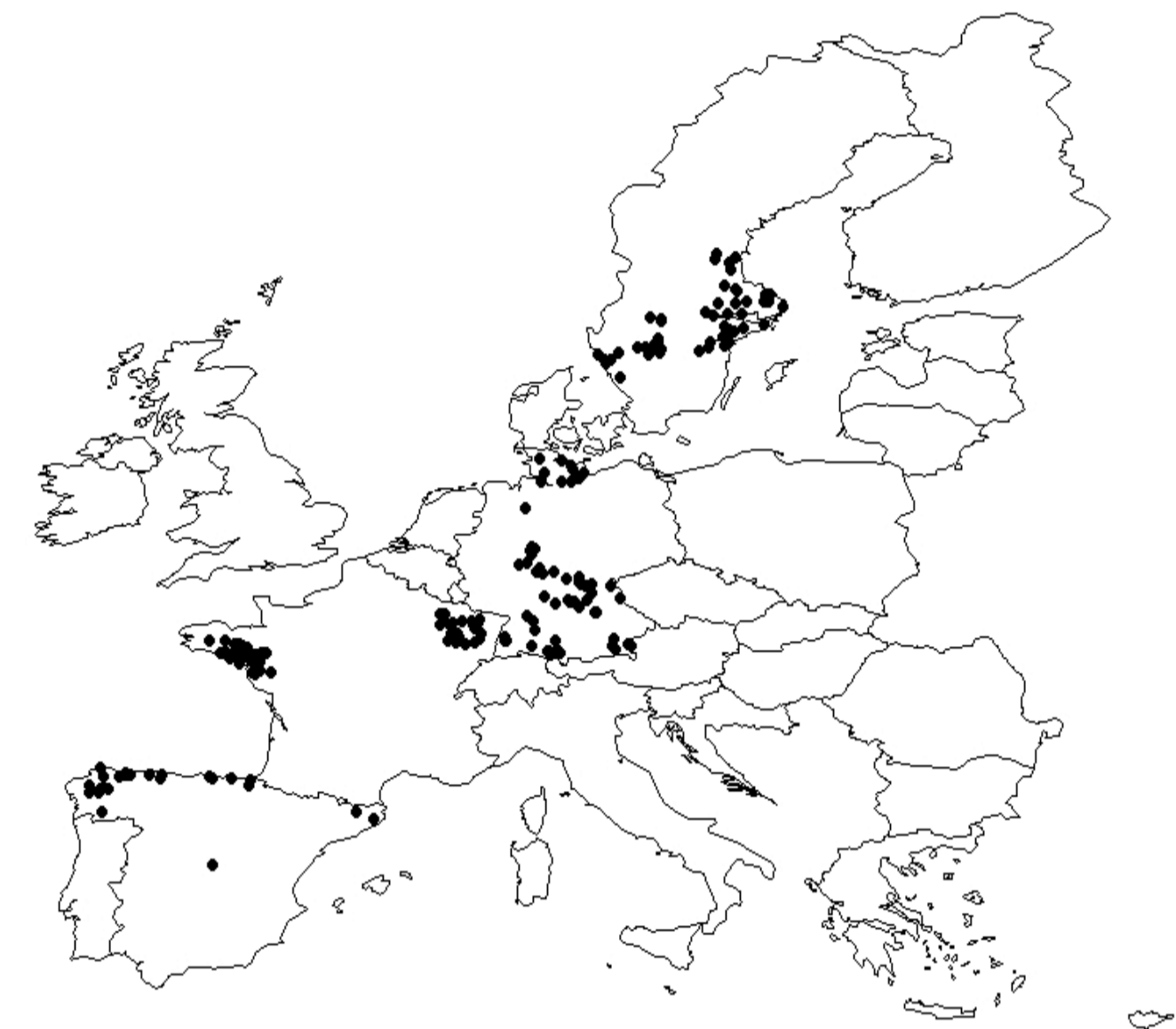
### MATERIAL AND METHODS

Study farms
192 organic dairy farms (from 218 contacted) from France, Germany, Spain and Sweden.

#### Simultaneous analysis of multivariate data sets
- Structural information (farmer profile, housing, milking system, feeding and reproductive management) –by face to face interviews
- Secondary milk records data

Data Management and analysis
- Review and selection of variables (start :114 var.)
- Multiple Correspondence Analysis (MCA) (most of the available data were qualitative)
- After MCA, Agglomerative hierarchical clustering (AHC)
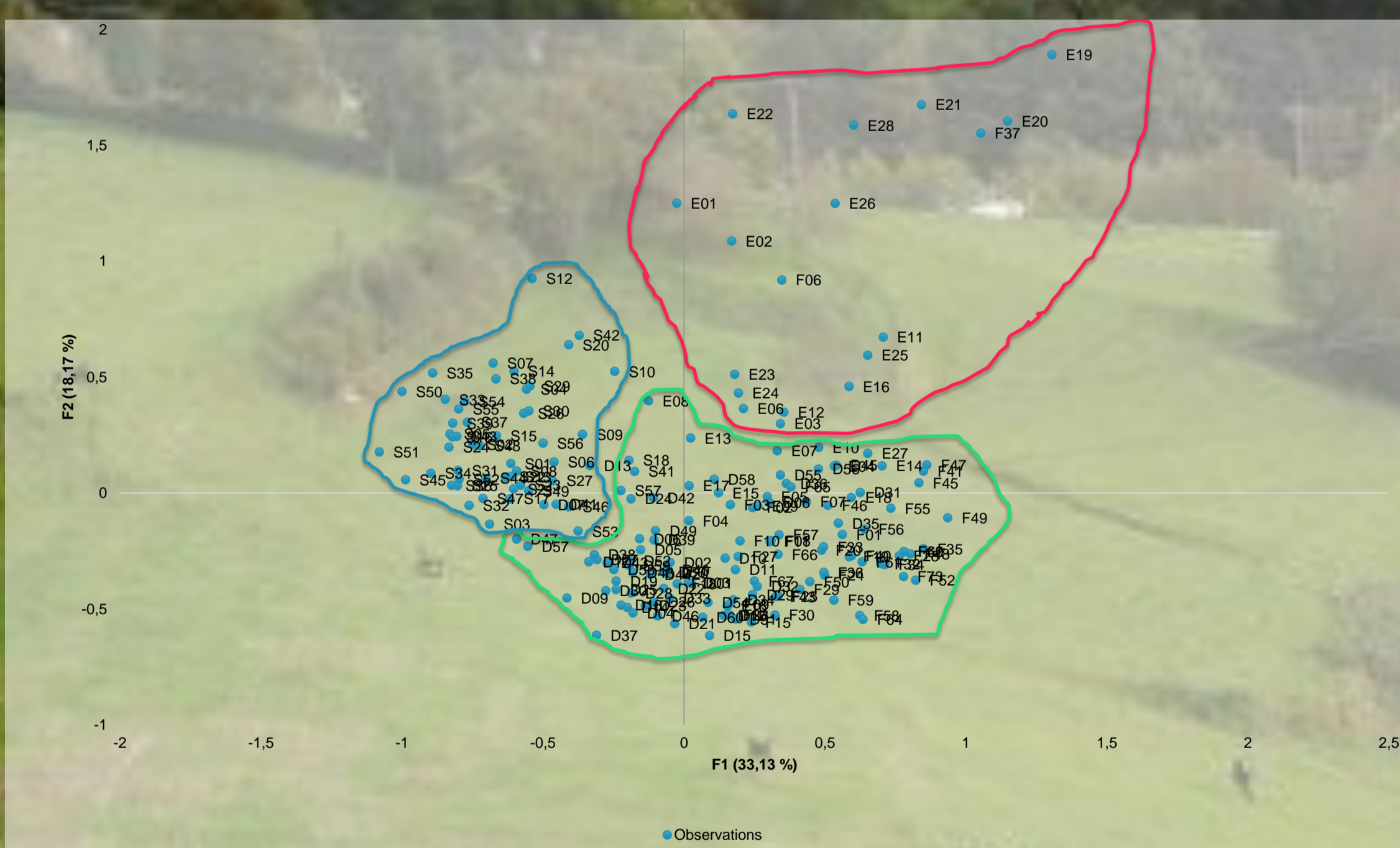
MCA yielded two principal components axes explaining in total 51.3% of variance
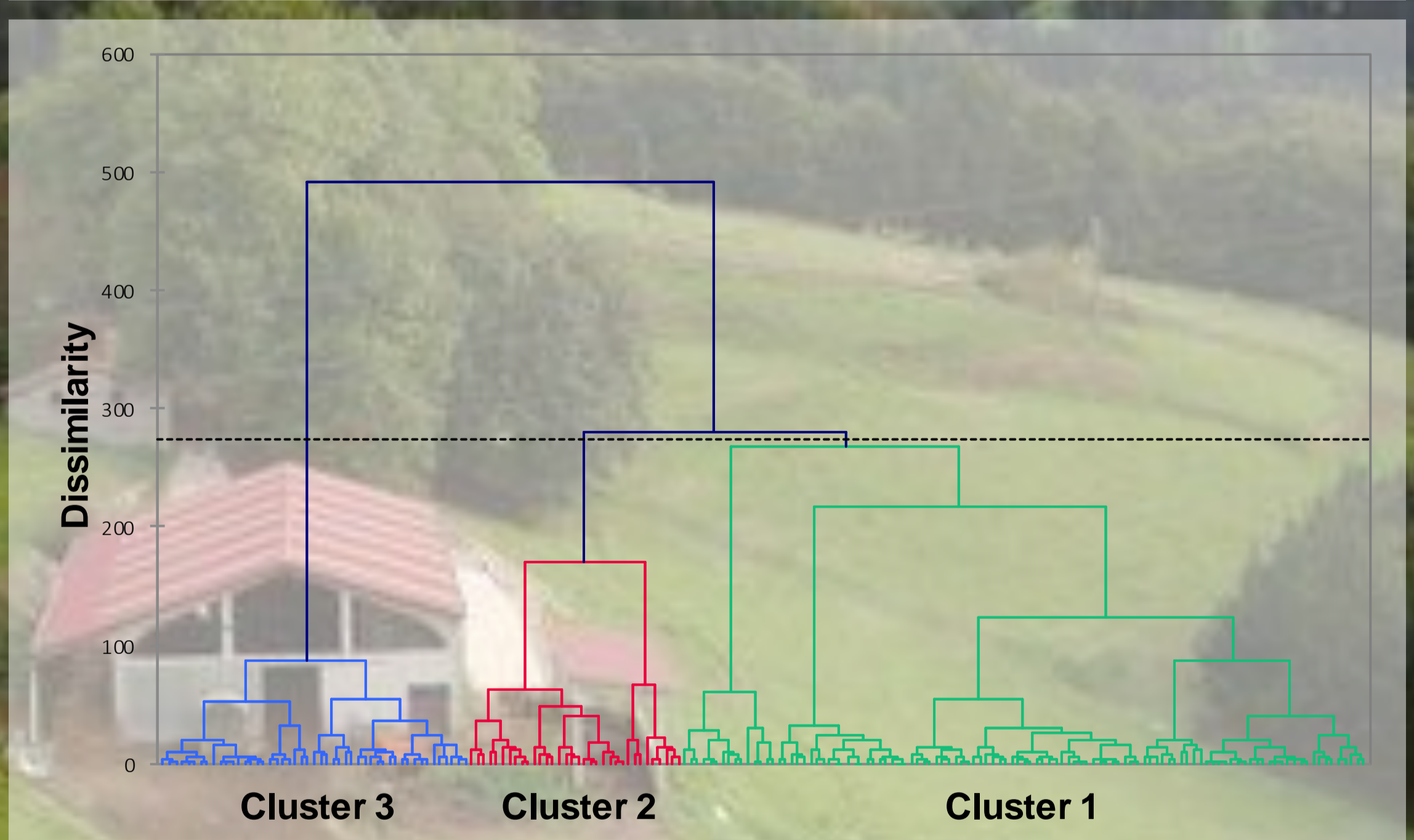
Variation within farm cluster was larger (68.6%) than between cluster classes (31.4%)

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