

# **GENOMIC SELECTION IN PRACTICAL OAT BREEDING – RESULTS, EXPERIENCES & CONCLUSIONS**

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Having been tremendously successful in animal breeding, genomic selection is now rapidly gaining traction also in plant breeding. In the Lantmännen spring oat breeding program, we have been using genomic selection as a routine method since 2014.

In this presentation, I will describe why we made the transition to genomic selection, how we have re-organized the breeding program and what we expect from future developments. Topics that will be covered include genetic marker platforms, SNP diversity, training population design, prediction accuracies for agronomic and quality traits, cross simulations, as well as the use of non-genetic data (e.g. NIR spectrum data) for predictive purposes.

Finally, I will reflect upon the great potential that genomic selection can have for fundamentally transforming the way we think about and carry out plant breeding.