Abstract by Stefan Rensing - Two years of experience with genomics – how well does it work?

Since 2009 many countries have introduced official genomic breeding values (gEBV) for dairy cattle especially Holsteins. In November 2011 Interbull has listed 22 populations that passed the test for genomic breeding values (GEBV test) including 14 Holstein populations. Meanwhile genomic proven bulls without daughter information take up to 50% of market share. Since there is no official conversion of genomic breeding values across countries the monitoring of national results (i.e. validation) is of interest not only for the domestic dairy farmers but also for foreign breeders. So for many dairy farmers the stability of gEBV when daughter information is added is very important and the "true" validation of genomics. Many countries have meanwhile 1-3 years of experience with genomics i.e. hundreds of Holstein bulls published before with only genomics now have daughter based proofs. For German Holsteins comparisons (validations) show a very good accordance for all traits. 200 bulls without daughters in 12-2010 and many daughters in 12-2011 (≥ 100 daughters milk and ≥ 50 classified daughters) deviate less than 0.1 genetic standard deviations for all main trait complexes. The bulls currently getting for the first time daughters had gEBV as waiting bulls, but originally were not pre-selected on genomics because gEBV were not available five years ago. So compared to current active young genomic bulls their genetic level for main traits is much lower in average. Therefore validation of the top bulls (>= +2 standard deviations) -beside the average bulls - is important as they represent the high level of gEBV common to current genomic top bulls. For German Holsteins the top bulls prove to be unbiased, too.