

**International Workshop**  
**Selection in Small Animal Populations**  
16<sup>th</sup> / 17<sup>th</sup> March 2006

An international workshop on selection in small populations was held in Berlin, Germany in March 2006. Several papers and posters were presented including studies on model animals, horses, swine and dairy cattle. A majority of the papers focused on the genetic variability and rate of inbreeding in small as well as in large populations.

In general, there has been more progress in small populations. However, there is a need to monitor the inbreeding, use of different founders etc. Some management programs are used in Poland and Czech Republic etc.

A new concept of use of molecular information was presented. This provides more insight on theoretical expectations.

As a summary of the workshop, it was felt that the existence of inbreeding depression was not clear. There has been an increase in inbreeding in small as well as large populations. However, at the same time there has been a large genetic progress in traits of interest. Inbreeding may not always be a bad thing. This has highest power of purging deleterious genes. However, there is a need to dissect inbreeding in different components. It was expected that there might be better contribution from inbreeding to molecular genetics.

Different populations had different results with the increase or decrease in inbreeding. A question was raised, if there is a need to worry about inbreeding apart from genetic defects. The problem could be rather overemphasis. In Holstein population effective size is 200 while 100 million genomes are available. The workshop therefore generated lots of new ideas to think about.

The program of the workshop is given on the next page. Proceedings including full length papers and conclusions from the workshop will be published as soon it is compiled.

## 200 Years of Agricultural Sciences in Berlin-Brandenburg

### International Workshop Selection in Small Animal Populations

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Organization: Prof. Dr. K.J. Peters, Prof. Dr. W. Schlote, Dr. U. Funke  
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#### Programme

16. 03. 2006	10 <sup>00</sup> h	Opening
	10 <sup>05</sup> h	<b>L. Schüler</b> (Halle): Conclusions from selection experiments with model animals
	10 <sup>35</sup> h	<b>E. Verrier</b> (Paris): Management of inbreeding and genetic variability in farm animal populations: methods, applications, results
	11 <sup>05</sup> h	Coffee break
	11 <sup>30</sup> h	<b>T. Szwackowski</b> (Poznan): Inbreeding and selection
	12 <sup>00</sup> h	<b>R. Baumung</b> (Vienna): Partial inbreeding coefficients
	12 <sup>30</sup> h	<b>M. Tixier-Boichard</b> (Jouy-en-Josas): Results of long-term selection in chicken
	13 <sup>00</sup> h	Lunch
	14 <sup>00</sup> h	<b>A. Wolc</b> (Poznan): Inbreeding and variation in a randomly selected Berlin mouse population
	14 <sup>30</sup> h	<b>W. Schlote</b> (Berlin): Selection in outbred and inbred Berlin lines of mice
	15 <sup>00</sup> h	<b>V. Jakubec</b> (Prague): Genetic variation in the genetic resource population of the Old Kladrub Horse: inbreeding and parameters for linear conformation traits
	15 <sup>30</sup> h	Break
	16 <sup>00</sup> h	Informal discussion and buffet dinner
17.03. 2006	9 <sup>00</sup> h	<b>P.K. Mathur</b> (Ottawa): Use of a small number of sires in swine populations
	9 <sup>30</sup> h	<b>G.B. Jansen</b> (Guelph): Small effective populations in dairy cattle breeding
	10 <sup>00</sup> h	Coffee break
	10 <sup>30</sup> h	Free communications and posters
	12 <sup>30</sup> h	Conclusions