



Splitting breeding goals and breeding programs: The example of Oldenburg

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Introduction



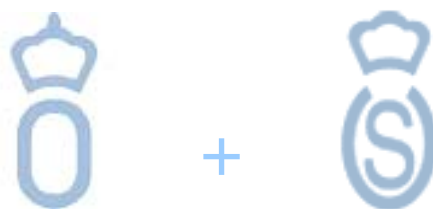
- Oldenburger horse breeders society (since 1923)



- Springpferdezuchtverband (Show jumping assoc.)
Oldenburg-International (since 2001)



Background



work together in close cooperation



partially deviant breeding goals and breeding programs



 athletes for all disciplines
in top-class equitation



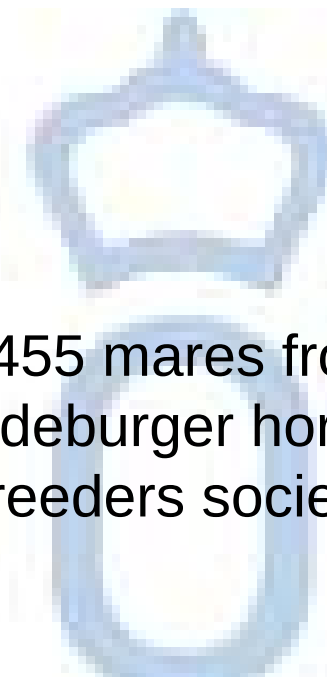
 breeding top quality
show jumpers

- ➔ Analysis of the breeding strategies
- ➔ Consequence of the specialisation



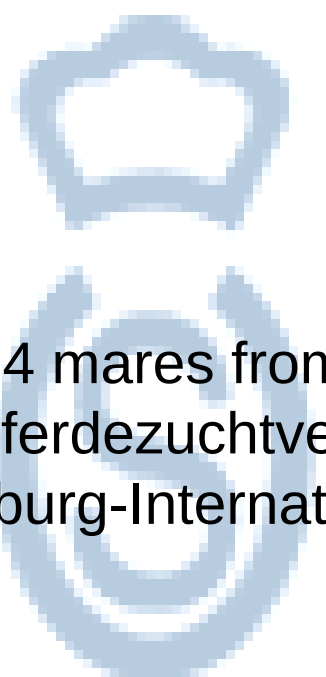
Database

Results of the national estimation of breeding values 2007 for Oldenburg broodmares



5,455 mares from
Oldeburger horse
breeders society

descending from 1,340
different stallions
($\bar{x}$ 4.1 female offspring)



884 mares from
Springpferdezuchtverband
Oldenburg-International

descending from 477
different stallions
($\bar{x}$ 1.8 female offspring)



Material

Performance data

- Show jumping and dressage competitions
- Show jumping and dressage of young horses' competitions
- Mare performance test / Ability test of young stallions
- Performance test of stallions

Information

- Own performance
- Pedigree performance

Structure

- 2 total merit indices
- 8 part indices
- 15 individual breeding values



Mares' own performance

kind of test association	mare performance test	competition		young horses' competition	
					
	53.9 % (2,942)	15.7 % (855)	17.2 % (936)	14.0 % (762)	15.2 % (828)
	29.2 % (258)	9.4 % (83)	45.8 % (405)	6.0 % (53)	42.4 % (375)



Comparison of total merit indices

Total merit indices	n	$\bar{x}$	s	Min	Max
 Dressage	5,455	102.38	19.0	47.0	169.0
 Dressage	884	87.55	12.01	35.0	136.0
 Show jumping	5,455	94.73	16.59	39.0	157.0
 Show jumping	884	107.44	16.20	60.0	155.0



Comparison of total merit indices

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Thresholds for top-quantiles

Total index Dressage	Quantile 25%	Quantile 10%	Quantile 5%	Quantile 1%
for published stallions '07	111	126	136	153
 Oldenburger horse breeders society	<u>116</u>	<u>128</u>	135	146
 Springpferdezuchtverband Oldenburg-International	95	103	107	117



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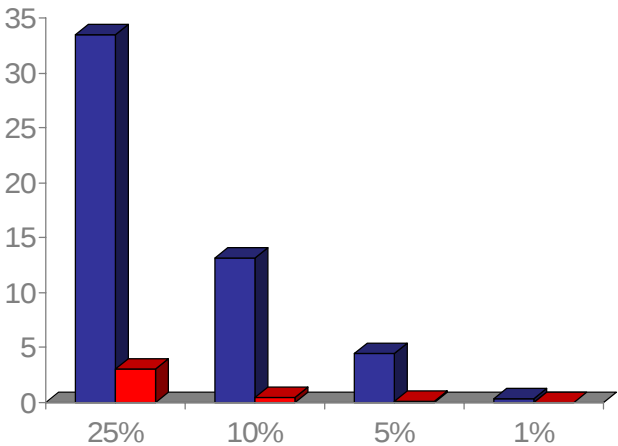
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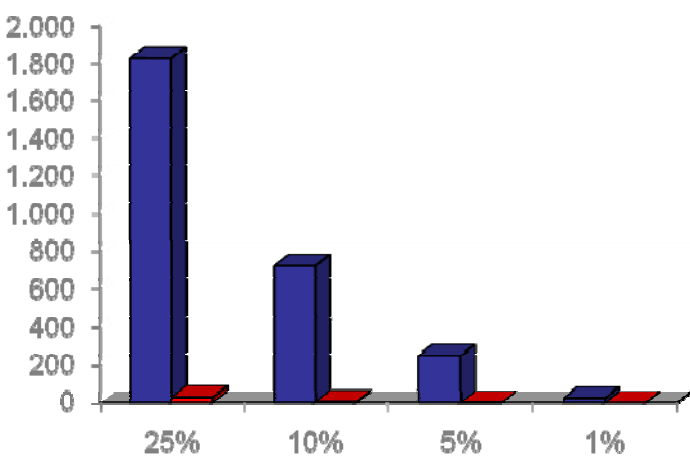
Relative and absolute frequency for mares of both associations
within the top-quantiles for published stallions 2007

♂ = ■
♀ = ■

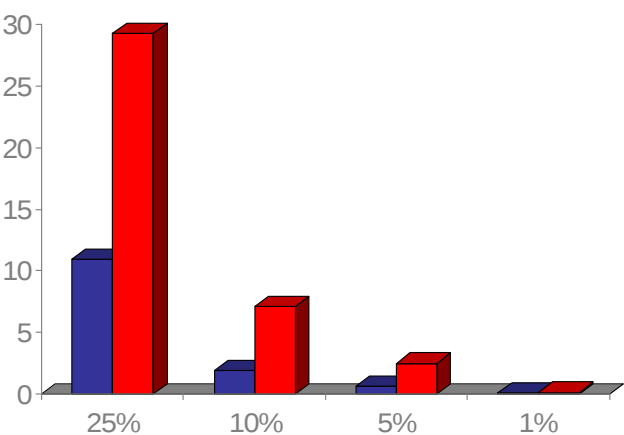
Relative frequency in %



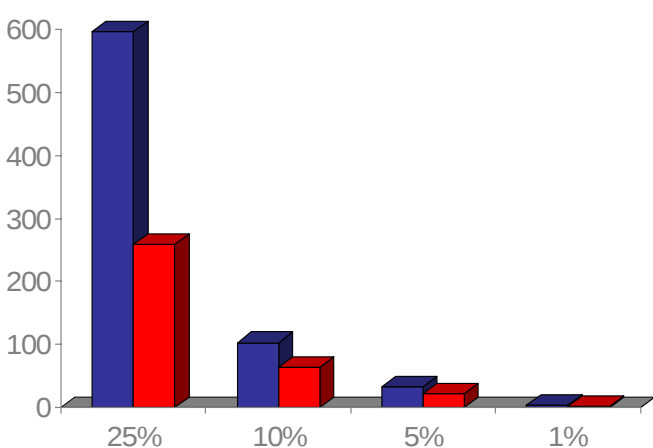
Absolute frequency



Relative frequency in %

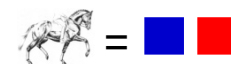
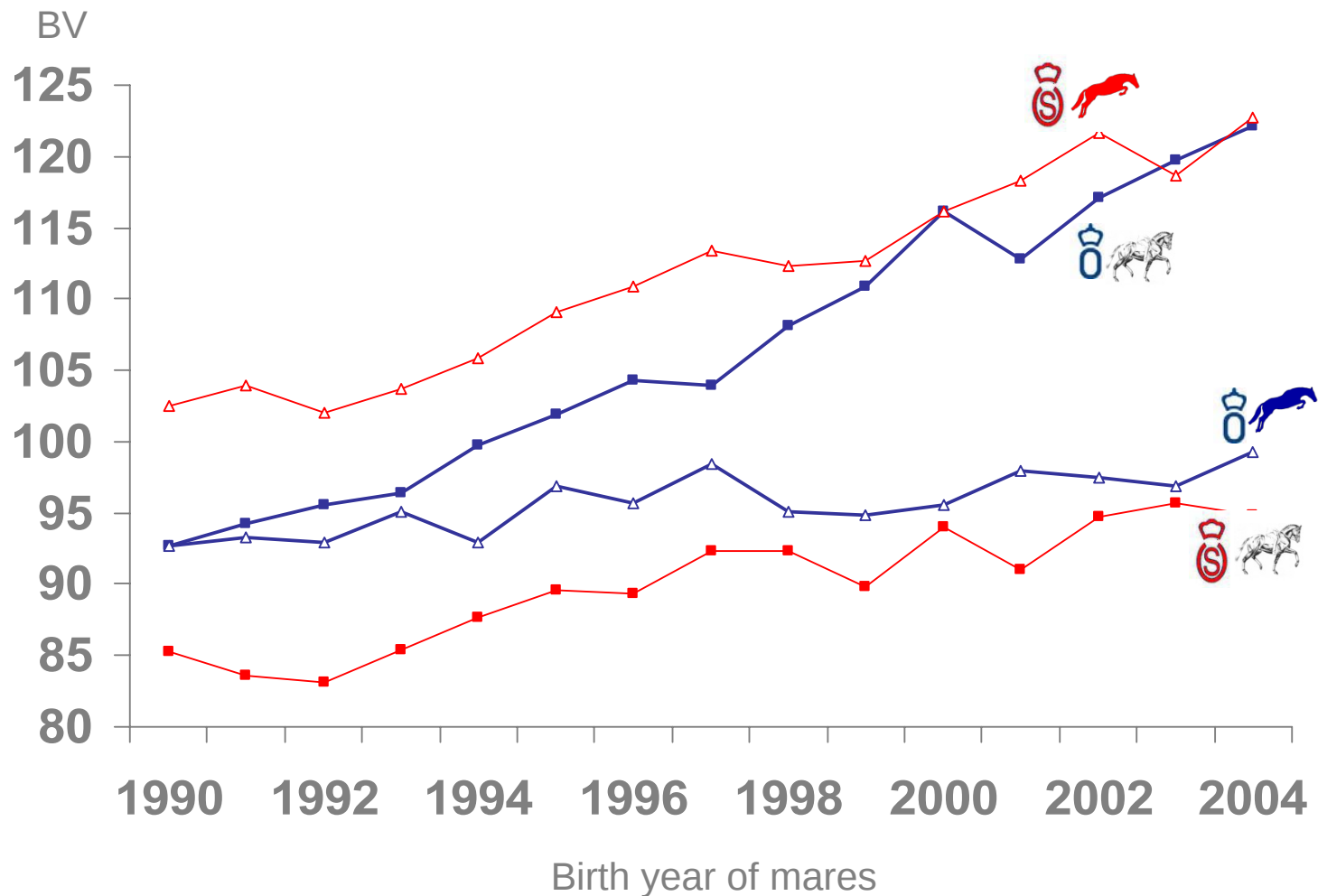


Absolute frequency





Genetic gain in total merit indices





Conclusions



Oldenburger horse breeders society

- a multiplicity of high-quality horses in both disciplines results from a wide base of broodmares
- the great variability of the broodmare population reflects the breeding strategy



Springferdezuchtverband Oldenburg-International

- high concentration of top-class show jumpers
- very intensive and effective breeding program is feasible

- ➔ Essential structural differences
- ➔ Differing Management
- ➔ In both associations selection is successful
- ➔ "Top-athletes" result from both strategies



Thank you for your attention !



Oldenburg filly from Daddy Cool, 2008

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