Genetic trends for performance of Swedish Warmblood horses

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Swedish Warmblood Breed
55,000 riding horses
5000 broodmares covered annually

Breeding objective
"Internationally competitive horses in dressage, show jumping or eventing"

Performance testing
3-year-olds
4-year-olds
3-5 year-old stallions
Competition

New "integrated" BLUP-indexes
Breeding values for
based on
43,700 competing horses (1961-2008)
19,300 4-year-olds (1973-2009)
10,900 3-year-olds (1999-2009)
220,000 horses in pedigree database

Aim
Investigate the genetic trends of performance of stallions and mares

Data
BLUP-indexes from official run 2009
Horses born 1960-2005

Males
881 SWB breeding stallions
31,321 tested males not used in breeding

Mares
23,355 SWB broodmares
13,339 tested mares not used in breeding
Genetic trend, all horses

Show jumping

Proportion tested broodmares

Quality of broodmares

<table>
<thead>
<tr>
<th>Birth year</th>
<th>3-y-olds</th>
<th>4-y-olds</th>
<th>Comp.</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>1960-1978</td>
<td></td>
<td>6.1</td>
<td>28.6</td>
<td>31.0</td>
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<tr>
<td>1979-1990</td>
<td></td>
<td>22.7</td>
<td>38.4</td>
<td>48.3</td>
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<tr>
<td>1991-2005</td>
<td>27.9</td>
<td>27.4</td>
<td>44.1</td>
<td>73.3</td>
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</table>

<table>
<thead>
<tr>
<th>Birth year</th>
<th>Percent jumping</th>
<th>Percent dressage</th>
</tr>
</thead>
<tbody>
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<td>1960-1978</td>
<td>17.2</td>
<td>6.3</td>
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<tr>
<td>1979-1990</td>
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<td>1991-2005</td>
<td>45.1</td>
<td>26.3</td>
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Summary

Increased genetic progress
Stronger selection of stallions
Testing of young horses
Import of high quality stallions
BLUP evaluation

Nearly no selection of broodmares

In the future
Effective selection of (Swedish) stallions
Use only the best mares

Thank you!
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