Genetic Parameters for Dry Matter Intake in Primiparous Holstein, Jersey and Nordic Red in the First Half of the Lactation

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Conclusions
- Heritability for Dry Matter Intake (DMI) was not significantly different between Holstein, Jersey and Nordic Red.
- DMI in the early lactation was genetically different from DMI in the middle lactation.
- Possible to combine cross-breed DMI data.

Objective
- Genetic parameters for DMI in Holstein, Jersey, and Nordic Red.
- Possible to combine across-breed DMI data into a genetic model?

Materials & Methods
- 1,751 primiparous cows in Denmark, Finland, Sweden:
  - 771 Holstein (HOL) + 284 Jersey (JER) + 696 Nordic Red (RDC)
- 4 data sets: HOL, JER, RDC, Combined (3 breeds)
- Data analysis
  - Genetic parameters for each lactation period in each data set

<table>
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<th>Period</th>
<th>Combined</th>
<th>Heritability</th>
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<td>6</td>
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<td>0.37 0.49 0.26 0.27</td>
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</tbody>
</table>

Results
- Breed had an obvious effect on DMI
  The difference in estimated DMI of RDC and Jersey compared to DMI of Holstein in different periods.
- Heritability for DMI were not significantly different between breeds.
- Genetic correlations (above diagonal) and phenotypic correlations (below diagonal) for DMI between lactation periods in the combined data set.

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