<table>
<thead>
<tr>
<th>Trait category</th>
<th>Individual trait(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth &amp; beef</td>
<td>Carcass gain</td>
</tr>
<tr>
<td></td>
<td>Carcass conformation</td>
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<td>Carcass fat</td>
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<tr>
<td></td>
<td>Muscularity</td>
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</tbody>
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Department of Agriculture, Food and Forestry
Kildare Street
Dublin 2, Ireland
Telephone  +353 1 607 2000
Facsimile  +353 1 661 6263
IRLAND

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**Breed(s)**
- Holstein Friesian

**Trait definition and unit(s) of measuring**
- a) Carcass gain (in kilograms) considering carcass weight between 18 and 24 months
- b,c) Scored on Euro scale
- d) Scored on a linear 1-9 point scale

**Type of recording and evaluation**
- a-c) Progeny test (steer animals)
- d) Progeny conformation score (female)

**Time period for data inclusion**
- a-c) Since 1976
- d) Since 1984

**Genetic parameters**
- a) $h^2_{\text{carcass gain}} = 0.4$
- b) $h^2_{\text{carcass conformation}} = 0.3$
- c) $h^2_{\text{carcass fat}} = 0.3$
- d) $h^2_{\text{muscularity}} = 0.25$

**Sire categories evaluated**
- a-c) AI test bulls
- d) All AI bulls

**Environmental effect pre-adjustment**
- a-c) None
- d) Age at calving, date of calving, stage of lactation

**Evaluation model**
- a-c) Year x test centre, breed, age
- d) Herd x year x AI-station

**Base for age adjustment**
- a-c) None
- d) 26 months

**Method (model) of genetic evaluation**
- a-d) ST BLUP SM

**Evaluation system validation**
- a-d) None

**Expression of proof**
- a) RBV with $M = 100$ and $SD = 3.5$
- b) RBV with $M = 100$ and $SD = 10$
- c) RBV with $M = 100$ and $SD = 5.0$
- d) ETA with $M = 0$ and $SD = 1.0$

**Genetic (reference) base**
- a-d) Based on mean from full data set (20 years)

**Criteria for official publication of sire proofs**
- a-d) REL $\geq 0.5$

**Number of evaluations/publications per year**
- a-d) One; March

**Use in total merit index**
- a-d) BMI (beef merit index): $100 + 3.77 \times \text{(daily gain - 100)} + 1.0 \times \text{(carcass fat - 100)} + 0.805 \times \text{(carcass conformation - 100)} + 0.805 \times \text{(muscularity)}$
- NB: expected transmitting abilities from muscularity are converted to EBV and rescaled to have equal variance with carcass conformation

**Key reference**
- a-d) Annual report (beef cattle)