Outcross Bulls & BDGP
• **Q:** What is an outcross bull?

• **Ans:** A bull with a bloodline that has never been used here before.

• **My Technical Definition:**
  - The AI bull’s Sire, Sire’s Sire and Dam’s sire do not have AI Codes and were not widely used by Pedigree Breeders in the last few years.
  - They would also not be in the immediate backpedigrees (Sire, Grandsire line) of many breeding females today.
Case Study

- Simmental Breed

- 52 Sires recommended for use by their Pedigree Breeders

- How many have 0, 1, 2 or 3 popular Simmental AI Sires in their immediate backpedigree (Sire & both Grandsires)?

- What are the €uro-Stars of those outcross bulls?

- What are their chances of improving their €uro-Stars?
Proportion of Outcross Bulls

- 14 of the 52 have complete ‘Outcross’ pedigrees

Simmental AI Sires - Outcross Analysis

<table>
<thead>
<tr>
<th>Breed</th>
<th>Bulls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apennines</td>
<td>11</td>
</tr>
<tr>
<td>Cervos</td>
<td>16</td>
</tr>
<tr>
<td>Pecus</td>
<td>11</td>
</tr>
<tr>
<td>Sottotoros</td>
<td>0</td>
</tr>
</tbody>
</table>

Number of Bulls
## Euro-Stars of Outcross Bulls

<table>
<thead>
<tr>
<th>Bull Details</th>
<th>Replacement</th>
<th>Terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code</td>
<td>Origin</td>
<td>Name</td>
</tr>
<tr>
<td>BLA</td>
<td>IRL</td>
<td>BALLYBANE LAD</td>
</tr>
<tr>
<td>S549</td>
<td>UK</td>
<td>OMORGA REGAN</td>
</tr>
<tr>
<td>ISL</td>
<td>UK</td>
<td>ISLAVALE CRACKER 11</td>
</tr>
<tr>
<td>S1515</td>
<td>UK</td>
<td>KEELDRUM CLIO 11 (P)</td>
</tr>
<tr>
<td>AHC</td>
<td>IRL</td>
<td>AUROCH DEUTER PP</td>
</tr>
<tr>
<td>S2003</td>
<td>UK</td>
<td>POPES BARCLAY 10 (PV)</td>
</tr>
<tr>
<td>RHC</td>
<td>IRL</td>
<td>CELTIC HUNTER</td>
</tr>
<tr>
<td>S1200</td>
<td>DNK</td>
<td>TISET DARWIN P</td>
</tr>
<tr>
<td>APZ</td>
<td>IRL</td>
<td>CURAHEEN APOSTLE ET</td>
</tr>
<tr>
<td>S2269</td>
<td>DNK</td>
<td>LOSNING IVER P</td>
</tr>
<tr>
<td>S2009</td>
<td>UK</td>
<td>WROXALL COCKER-LEEKY-SOUP 11PP</td>
</tr>
<tr>
<td>S2005</td>
<td>UK</td>
<td>BANWY WONDERBOY</td>
</tr>
<tr>
<td>S2004</td>
<td>UK</td>
<td>FALONDENE CINCINNATI 11</td>
</tr>
<tr>
<td>FZD</td>
<td>UK</td>
<td>DELFUR DECIDER 12</td>
</tr>
</tbody>
</table>

- **All are outcross bulls** but with different usage potential
Euro-Stars of Outcross Bulls

• Reliability % of outcross bulls is generally always lower than their comrades with ‘Popular’ backpedigrees.

• Until ‘Rel %’ rises – the potential benefits of using the ‘outcross’ bull is unknown.

• 2 Factors affecting the Euro-Stars of an ‘Outcross’ bull:
  – Foreign data being included in his Irish figures
  – How his semen is priced, marketed & used here.
    • Is his semen available for use in commercial & pedigree herds?
    • Is his semen only available on a pre-order basis to pedigree breeders?

Regardless of BDGP scheme this is always an issue for such bulls.
## Euro-Stars of Outcross Bulls

### Simmental Outcross Bulls

<table>
<thead>
<tr>
<th>Code</th>
<th>Origin</th>
<th>Name</th>
<th>Index</th>
<th>Stars Within</th>
<th>Stars Across</th>
<th>Rel %</th>
<th>BGDP</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLA</td>
<td>IRL</td>
<td>BALLYBANE LAD</td>
<td>204</td>
<td>5</td>
<td>5</td>
<td>88</td>
<td>55</td>
<td>1</td>
</tr>
<tr>
<td>S549</td>
<td>UK</td>
<td>OMORGA REGAN</td>
<td>140</td>
<td>3</td>
<td>3.5</td>
<td>59</td>
<td>97</td>
<td>5</td>
</tr>
<tr>
<td>ISL</td>
<td>UK</td>
<td>ISLAVALE CRACKER 11</td>
<td>128</td>
<td>2.5</td>
<td>3.5</td>
<td>34</td>
<td>48</td>
<td>0.5</td>
</tr>
<tr>
<td>S1515</td>
<td>UK</td>
<td>KEELDRUM CLIO 11 (P)</td>
<td>125</td>
<td>2</td>
<td>3</td>
<td>18</td>
<td>61</td>
<td>1.5</td>
</tr>
<tr>
<td>AHC</td>
<td>IRL</td>
<td>AUROCH DEUTER PP</td>
<td>121</td>
<td>2</td>
<td>3</td>
<td>11</td>
<td>72</td>
<td>3</td>
</tr>
<tr>
<td>S2003</td>
<td>UK</td>
<td>POPES BARCLAY 10 (PV)</td>
<td>118</td>
<td>2</td>
<td>3</td>
<td>9</td>
<td>63</td>
<td>2</td>
</tr>
<tr>
<td>RHC</td>
<td>IRL</td>
<td>CELTIC HUNTER</td>
<td>113</td>
<td>1.5</td>
<td>3</td>
<td>74</td>
<td>19</td>
<td>0.5</td>
</tr>
<tr>
<td>S1200</td>
<td>DNK</td>
<td>TISET DARWIN P</td>
<td>99</td>
<td>1</td>
<td>2.5</td>
<td>6</td>
<td>47</td>
<td>0.5</td>
</tr>
<tr>
<td>APZ</td>
<td>IRL</td>
<td>CURAHEEN APOSTLE ET</td>
<td>95</td>
<td>1</td>
<td>2.5</td>
<td>78</td>
<td>67</td>
<td>2</td>
</tr>
<tr>
<td>S2269</td>
<td>DNK</td>
<td>LOSNING IVER P</td>
<td>88</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>35</td>
<td>0.5</td>
</tr>
<tr>
<td>S2009</td>
<td>UK</td>
<td>WROXALL COCKER-LEEKY-SOUP 11PP</td>
<td>86</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>48</td>
<td>0.5</td>
</tr>
<tr>
<td>S2005</td>
<td>UK</td>
<td>BANWY WONDERBOY</td>
<td>86</td>
<td>1</td>
<td>2</td>
<td>22</td>
<td>54</td>
<td>1</td>
</tr>
<tr>
<td>S2004</td>
<td>UK</td>
<td>FALONDENE CINCINNATI 11</td>
<td>74</td>
<td>0.5</td>
<td>2</td>
<td>7</td>
<td>39</td>
<td>0.5</td>
</tr>
<tr>
<td>FZD</td>
<td>UK</td>
<td>DELFUR DECIDER 12</td>
<td>57</td>
<td>0.5</td>
<td>1.5</td>
<td>13</td>
<td>39</td>
<td>0.5</td>
</tr>
</tbody>
</table>

- Take 2 bulls to explain the ‘usage potential’ issue
€uro-Stars of Outcross Bulls

- Outcross Bull in Widespread AI
- Inclusion of foreign data in his €uro-Stars
- €8/straw in Tech Service
- Widely available to Commercial farmers

Pedigree

<table>
<thead>
<tr>
<th>Sire</th>
<th>dam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glenbur Premier</td>
<td>Islavale Kula</td>
</tr>
<tr>
<td>Nezura Keystone</td>
<td>Islavale Marvel</td>
</tr>
</tbody>
</table>

April 2013

Total Calves: 493
Ped Calves: 89
Calving Surveys: 284
Linear Scores: 14
Weights: 87
Carcass Recs: 2
His AI Usage has put enough progeny on the ground to allow his Euro-Stars to find their correct level in time.
Euro-Stars of Outcross Bulls

- Outcross Bull not in Widespread AI
- Inclusion of foreign data in his €uro-Stars
- €30/straw pre-order
- Widely available to Commercial farmers

<table>
<thead>
<tr>
<th>SIRE</th>
<th>DAM</th>
<th>MARYWOOD POLLED WESTERN 91J</th>
<th>TISET PETRINE</th>
<th>DUN LANCER</th>
<th>BUCKLANDS LAURA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TISET VAGN P</td>
<td>BUCKLANDS MOLLY</td>
<td>TISET DARWIN P</td>
<td>A.I. Code: S1200</td>
<td>Available from: ISCS 057 93 24577</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Economic Indexes</th>
<th>Economic Indexes</th>
<th>Euro Value</th>
<th>Index Reliability</th>
<th>Across Breed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal</td>
<td>Replacement</td>
<td>€41.60</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Replacement</td>
<td></td>
<td>€110.95</td>
<td>1%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Profit Traits</th>
<th>Key Profit Traits</th>
<th>Index Value</th>
<th>Trait Reliability</th>
<th>Within Breed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carcase Weight</td>
<td></td>
<td>13kg</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Carcase Conformation (1-15)</td>
<td></td>
<td>1.06</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Calving difficulty (% 3 &amp; 4)</td>
<td></td>
<td>4.6</td>
<td>2%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Calves</th>
<th>Ped Calves</th>
<th>Calving Surveys</th>
<th>Linear Scores</th>
<th>Weights</th>
<th>Carcass Recs</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>-</td>
</tr>
</tbody>
</table>
### Euro-Stars of Outcross Bulls

<table>
<thead>
<tr>
<th>Star Rating (within Simmental breed)</th>
<th>Economic Indexes</th>
<th>Euro value per progeny</th>
<th>Index reliability</th>
<th>Star Rating (across all beef breeds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>⭐⭐⭐⭐⭐ ⭐⭐⭐⭐⭐</td>
<td>Replacement</td>
<td>€99</td>
<td>6% (V Low)</td>
<td>⭐⭐⭐⭐⭐</td>
</tr>
<tr>
<td></td>
<td>Maternal Gow Traits</td>
<td>€28</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maternal Progeny Traits</td>
<td>€72</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>⭐⭐⭐⭐⭐ ⭐⭐⭐⭐⭐</td>
<td>Terminal</td>
<td>€47</td>
<td>9% (V Low)</td>
<td>⭐⭐⭐⭐⭐</td>
</tr>
<tr>
<td></td>
<td>Dairy Beef</td>
<td>€</td>
<td>% (N/A)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Star Rating (within Simmental breed)</th>
<th>Key profit traits</th>
<th>Index value</th>
<th>Trait reliability</th>
<th>Star Rating (across all beef breeds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>⭐⭐⭐⭐⭐ ⭐⭐⭐⭐⭐</td>
<td>Calving difficulty (% 3 &amp; 4)</td>
<td>5.50%</td>
<td>19% (V Low)</td>
<td>⭐⭐⭐⭐⭐</td>
</tr>
<tr>
<td>Breed ave: 5.48%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All breeds ave: 4.98%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>⭐⭐⭐⭐⭐ ⭐⭐⭐⭐⭐</td>
<td>Docility (1-5scale)</td>
<td>0.02 scale</td>
<td>7% (V Low)</td>
<td>⭐⭐⭐⭐⭐</td>
</tr>
<tr>
<td>Breed ave: 0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All breeds ave: 0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>⭐⭐⭐⭐⭐ ⭐⭐⭐⭐⭐</td>
<td>Carcass weight (kg)</td>
<td>15kg</td>
<td>7% (V Low)</td>
<td>⭐⭐⭐⭐⭐</td>
</tr>
<tr>
<td>Breed ave: 22.98kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All breeds ave: 22.69kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>⭐⭐⭐⭐⭐ ⭐⭐⭐⭐⭐</td>
<td>Carcass conformation (1-15 scale)</td>
<td>1.2 scale</td>
<td>3% (Too Low)</td>
<td>⭐⭐⭐⭐⭐</td>
</tr>
<tr>
<td>Breed ave: 1.44</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All breeds ave: 1.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Expected Progeny Performance

<table>
<thead>
<tr>
<th>Expected progeny performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>19% (V Low)</td>
</tr>
</tbody>
</table>

### Expected Daughter Breeding Performance

<table>
<thead>
<tr>
<th>Expected daughter breeding performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1% (Too Low)</td>
</tr>
</tbody>
</table>

- His AI Usage has **not** put enough progeny on the ground to allow his Euro-Stars to find their correct level in time.

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ICBF.com
Euro-Stars of Outcross Bulls

- Targeting Farmers to use semen is another approach.

- 8000 catalogues sent out. 100’s of calls made.
Euro-Stars of Outcross Bulls

• Regardless of whether a bull is an outcross or not:

• Getting a large number of progeny born across a large number of herds is critical for an accurate picture of his evaluations.

• Some ‘Well Proven’ bulls from foreign breeding programs have been used here and disappointed when their progeny arrived.

• Other such Foreign bulls though have delivered on their foreign figures.
• ULE – Maternally proven bull from French Program
### Euro-Stars of Outcross Bulls

**2015**

<table>
<thead>
<tr>
<th>Star Rating (within Limousin breed)</th>
<th>Economic Indexes</th>
<th>Euro value per progeny</th>
<th>Index reliability</th>
<th>Star Rating (across all beef breeds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement</td>
<td>Maternal Cow Traits</td>
<td>€108</td>
<td>97% (V High)</td>
<td>⭐⭐⭐⭐⭐</td>
</tr>
<tr>
<td></td>
<td>Maternal Progeny Traits</td>
<td>€97</td>
<td>97%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>€205</td>
<td>97%</td>
<td></td>
</tr>
<tr>
<td>Terminal</td>
<td></td>
<td>€121</td>
<td>96% (V High)</td>
<td>⭐⭐⭐⭐⭐</td>
</tr>
<tr>
<td>Dairy Beef</td>
<td></td>
<td>€</td>
<td>% (N/A)</td>
<td>⭐⭐⭐⭐⭐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Star Rating (within Limousin breed)</th>
<th>Key profit traits</th>
<th>Index value</th>
<th>Trait reliability</th>
<th>Star Rating (across all beef breeds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected progeny performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calving difficulty (% 3 &amp; 4)</td>
<td>3.70%</td>
<td>99% (V High)</td>
<td>⭐⭐⭐⭐⭐</td>
<td></td>
</tr>
<tr>
<td>Breed ave: 4.95%, All breeds ave: 4.98%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Docility (1-5 scale)</td>
<td>-0.09 scale</td>
<td>98% (V High)</td>
<td>⭐⭐⭐⭐⭐</td>
<td></td>
</tr>
<tr>
<td>Breed ave: -0.05, All breeds ave: 0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carcass weight (kg)</td>
<td>14kg</td>
<td>99% (V High)</td>
<td>⭐⭐⭐⭐⭐</td>
<td></td>
</tr>
<tr>
<td>Breed ave: 23.82kg, All breeds ave: 22.98kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carcass conformation (1-15 scale)</td>
<td>2.09 scale</td>
<td>99% (V High)</td>
<td>⭐⭐⭐⭐⭐</td>
<td></td>
</tr>
<tr>
<td>Breed ave: 2.14, All breeds ave: 1.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Expected daughter breeding performance |                   |             |                   |                                      |
| Daughter calving difficulty (% 3 & 4) | 5.6%              | 98% (V High)| ⭐⭐⭐⭐⭐            |                                      |
| Breed ave: 5.45%, All breeds ave: 6.15% |                   |             |                   |                                      |
| Daughter milk (kg)                   | 2.09kg            | 99% (V High)| ⭐⭐⭐⭐⭐            |                                      |
| Breed ave: -0.84kg, All breeds ave: 0.31kg |                   |             |                   |                                      |
| Daughter calving interval (days)     | 5.73 days         | 95% (V High)| ⭐⭐⭐⭐⭐            |                                      |
| Breed ave: 1.09 days, All breeds ave: -0.32 days |                   |             |                   |                                      |

- Delivered on milk but not fertility
Euro-Stars of Outcross Bulls

Sang D’Or
HB No. 5101574340 Born 24.04.2001

SGO
Charolais

- Total outcross for pedigree breeders
- Indurain’s successor
- Outstanding conformation, muscularity and locomotion (1500kg mature weight)
- Over 100 progeny inspected before purchase
- All immediate Dams and Grand Dam's scored RR4S

Pedigree

<table>
<thead>
<tr>
<th>Sire: Ordeo</th>
<th>8998108843</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dam: Legion</td>
<td>5194426993</td>
</tr>
<tr>
<td>Sire: James Cook</td>
<td></td>
</tr>
<tr>
<td>Dam: Jordanie</td>
<td></td>
</tr>
<tr>
<td>Sire: Baron</td>
<td></td>
</tr>
<tr>
<td>Dam: Histoire</td>
<td></td>
</tr>
</tbody>
</table>

• SGO – Imported from pedigree breeder in France
## €uro-Stars of Outcross Bulls

### 2015

<table>
<thead>
<tr>
<th>Star Rating (within Charolais breed)</th>
<th>Economic Indexes</th>
<th>€uro value per progeny</th>
<th>Index reliability</th>
<th>Star Rating (across all beef breeds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement</td>
<td>Maternal Cow Traits, Maternal Progeny Traits</td>
<td>€225, €289, €64</td>
<td>84% (V High), 78% (High), 88% (High)</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Terminal</td>
<td></td>
<td>€77</td>
<td>88% (V High)</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Dairy Beef</td>
<td></td>
<td>€</td>
<td>% (N/A)</td>
<td>✭✭✭✭✭</td>
</tr>
</tbody>
</table>

### Key profit traits

<table>
<thead>
<tr>
<th>Expected progeny performance</th>
<th>Index value</th>
<th>Trait reliability</th>
<th>Star Rating (across all beef breeds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calving difficulty (% 3 &amp; 4)</td>
<td>18.70%</td>
<td>95% (V High)</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Docility (1-5 scale)</td>
<td>-0.01</td>
<td>94% (V High)</td>
<td>✭✭✭✭✭</td>
</tr>
<tr>
<td>Carcass weight (kg)</td>
<td>38kg</td>
<td>97% (V High)</td>
<td>✭✭✭✭✭ ✭✭✭✭✭</td>
</tr>
<tr>
<td>Carcass conformation (1-15 scale)</td>
<td>2.22</td>
<td>96% (V High)</td>
<td>✭✭✭✭✭ ✭✭✭✭✭</td>
</tr>
</tbody>
</table>

### Expected daughter breeding performance

| Daughter calving difficulty (% 3 & 4) | 6.8% | 65% (High)        | ✭✭✭✭✭ |
| Daughter milk (kg)                   | -11.42kg | 79% (High)      | ✭✭✭✭✭ |
| Daughter calving interval (days)     | 4.9 days | 77% (High)      | ✭✭✭✭✭ |

- Delivered on carcass but not on calving or maternal
**Euro-Stars of Outcross Bulls**

**OZEUS OZS**
DOB: 10/10/1998

- **IDOLE**
- **DIRECTRICE**
- **JENNY**

**HIRONDELE**
- The perfect maternal sire, producing great females without compromising on beefing ability.
- Daughters are perfect brood cows, fertile, easy keeping, correct and docile. They are good mothers, have plenty of milk, good calving ability, good udder structure and rear heavy calves.
- Great satisfaction with the quality of commercial calves.

---

**Star Ratings**

<table>
<thead>
<tr>
<th>Category</th>
<th>Star Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>100%</td>
</tr>
<tr>
<td>Daughter</td>
<td>85%</td>
</tr>
<tr>
<td>Stillborn</td>
<td>90%</td>
</tr>
</tbody>
</table>

---

**Expected Progeny Performance**

<table>
<thead>
<tr>
<th>Trait</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth weight (kg)</td>
<td>210kg</td>
</tr>
<tr>
<td>Weaning weight (kg)</td>
<td>610kg</td>
</tr>
<tr>
<td>Milk yield (kg)</td>
<td>1140kg</td>
</tr>
</tbody>
</table>

---

**Bull Performance**

<table>
<thead>
<tr>
<th>Trait</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calving ease</td>
<td>Easy</td>
</tr>
<tr>
<td>Average kidding</td>
<td>120</td>
</tr>
<tr>
<td>Birth weight</td>
<td>139</td>
</tr>
<tr>
<td>Weaning weight</td>
<td>694</td>
</tr>
<tr>
<td>Milk yield</td>
<td>8.21kg</td>
</tr>
</tbody>
</table>

---

**OZS – Proven Maternal bull from France**
## Euro-Stars of Outcross Bulls

### 2015

<table>
<thead>
<tr>
<th>Star Rating (within Limousin breed)</th>
<th>Economic Indexes</th>
<th>€uro value per progeny</th>
<th>Index reliability</th>
<th>Star Rating (across all beef breeds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>★★★★★</td>
<td>Replacement</td>
<td>€196</td>
<td>85% (V High)</td>
<td>★★★★★</td>
</tr>
<tr>
<td></td>
<td>Maternal Gow Traits</td>
<td>€5</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maternal Progeny Traits</td>
<td>€191</td>
<td>95%</td>
<td></td>
</tr>
<tr>
<td>★★★★★</td>
<td>Terminal</td>
<td>€121</td>
<td>95% (V High)</td>
<td>★★★★★</td>
</tr>
<tr>
<td></td>
<td>Dairy Beef</td>
<td>€</td>
<td>% (N/A)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Star Rating (within Limousin breed)</th>
<th>Key profit traits</th>
<th>Index value</th>
<th>Trait reliability</th>
<th>Star Rating (across all beef breeds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>★★★★★</td>
<td>Calving difficulty (% 3 &amp; 4)</td>
<td>6.10%</td>
<td>99% (V High)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Breed ave: 4.95%, All breeds ave: 4.98%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>★★★★★</td>
<td>Docility (1-5 scale)</td>
<td>-0.03 scale</td>
<td>98% (V High)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Breed ave: -0.05, All breeds ave: 0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>★★★★★</td>
<td>Carcass weight (kg)</td>
<td>26kg</td>
<td>99% (V High)</td>
<td>★★★★★</td>
</tr>
<tr>
<td></td>
<td>Breed ave: 23.82kg, All breeds ave: 22.98kg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>★★★★★</td>
<td>Carcass conformation (1-15 scale)</td>
<td>2.19 scale</td>
<td>99% (V High)</td>
<td>★★★★★</td>
</tr>
<tr>
<td></td>
<td>Breed ave: 2.14, All breeds ave: 1.86</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Expected progeny performance

- **Calving difficulty (% 3 & 4)**
  - Breed ave: 4.95%, All breeds ave: 4.98%
  - Index value: 6.10%
  - Trait reliability: 99% (V High)

### Expected daughter breeding performance

- **Daughter calving difficulty (% 3 & 4)**
  - Breed ave: 5.45%, All breeds ave: 6.15%
  - Index value: 4.7%
  - Trait reliability: 65% (High)

- **Daughter milk (kg)**
  - Breed ave: -0.84kg, All breeds ave: 0.31kg
  - Index value: 2.85kg
  - Trait reliability: 80% (V High)

- **Daughter calving interval (days)**
  - Breed ave: 1.09 days, All breeds ave: -0.32 days
  - Index value: .2 days
  - Trait reliability: 80% (V High)

- **Delivering on maternal promise.**
Euro-Stars of Outcross Bulls

2006

• PNY – Proven Maternal bull from France
## Euro-Stars of Outcross Bulls

### Economic Indexes

<table>
<thead>
<tr>
<th>Star Rating (within Charolais breed)</th>
<th>Economic Indexes</th>
<th>Euro value per progeny</th>
<th>Index reliability</th>
<th>Star Rating (across all beef breeds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replacement</td>
<td>Maternal Cow Traits</td>
<td>€194</td>
<td>80% (V High)</td>
<td>★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆</td>
</tr>
<tr>
<td></td>
<td>Maternal Progeny Traits</td>
<td>€-53</td>
<td>72%</td>
<td></td>
</tr>
<tr>
<td>Terminal</td>
<td></td>
<td>€247</td>
<td>87%</td>
<td></td>
</tr>
<tr>
<td>Dairy Beef</td>
<td></td>
<td>€149</td>
<td>86% (V High)</td>
<td>★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆</td>
</tr>
<tr>
<td></td>
<td></td>
<td>€</td>
<td>% (N/A)</td>
<td></td>
</tr>
</tbody>
</table>

### Key profit traits

<table>
<thead>
<tr>
<th>Star Rating (within Charolais breed)</th>
<th>Key profit traits</th>
<th>Index value</th>
<th>Trait reliability</th>
<th>Star Rating (across all beef breeds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calving difficulty (% 3 &amp; 4)</td>
<td>Breed ave: 7.55%, All breeds ave: 4.98%</td>
<td>3.50%</td>
<td>93% (V High)</td>
<td>★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆</td>
</tr>
<tr>
<td>Docility (1-5 scale)</td>
<td>Breed ave: 0.04, All breeds ave: 0.00</td>
<td>0.11 scale</td>
<td>89% (V High)</td>
<td>★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆</td>
</tr>
<tr>
<td>Carcass weight (kg)</td>
<td>Breed ave: 32.88kg, All breeds ave: 22.98kg</td>
<td>37kg</td>
<td>95% (V High)</td>
<td>★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆</td>
</tr>
<tr>
<td>Carcass conformation (1-5 scale)</td>
<td>Breed ave: 1.94, All breeds ave: 1.88</td>
<td>1.83 scale</td>
<td>95% (V High)</td>
<td>★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆ ★★★★☆</td>
</tr>
</tbody>
</table>

### Expected progeny performance

- **Calving difficulty (% 3 & 4)**
  | Breed ave: 7.55%, All breeds ave: 4.98% |
  | 3.50% | 93% (V High) |

### Expected daughter breeding performance

- **Daughter calving difficulty (% 3 & 4)**
  | Breed ave: 5.85%, All breeds ave: 6.15% |
  | 4% | 54% (Average) |

- **Daughter milk (kg)**
  | Breed ave: -5.51kg, All breeds ave: 0.31kg |
  | .53kg | 82% (V High) |

- **Daughter calving interval (days)**
  | Breed ave: 0.47 days, All breeds ave: -0.32 days |
  | -.94days | 68% (High) |

- Delivering on maternal traits.
Conclusion

• Factors affecting the establishment & movement of a Bull’s €uro-Stars:

1. Inclusion of a Bull’s foreign data
   – Availability of the data & Suitability of that data for inclusion
   – i.e. is the bull in a breeding program in the foreign country.

2. Semen Usage Prospects of the bull:
   – Availability of his semen
     • Is he in an AI Technician network service or pre-order?
     • Is he in a structured program where farmers are being called?
   – Price of his semen
     • Is he @ €10/straw for commercial usage?
     • Is there a royalty fee on top of the straw price?
Thank You