Update on Importation of Dairy Ram Semen into the U.S.

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Why would new genetic material be beneficial?

The three dairy breeds present in Canada and the U.S. are:

- East Friesian
- Lacaune
- British Milk Sheep

The animals of these breeds in North America originated from a small number of rams, and performance of our sheep could be subject to inbreeding depression.

**East Friesian sheep in North America are descended from a few rams from:**

Switzerland – Gasser, Eurosheep, Rosebud, Regli

The Netherlands – Wooldrift, Eurosheep, Ag Innovation

Germany – Eurosheep

Belgium – Ag Innovation

Sweden – La Moutonnière, *via New Zealand*
Some Early EF Imports

Hani Gasser’s flock, British Columbia, Swiss origin

Flock at Harper Adams Agricultural College, Shropshire, U.K., primarily of Dutch origin, source of Wooldrift Farm’s first importation.
## Evaluation of EF Lines

### Estimated Breeding Values of EF Rams Used at the University of Wisconsin

<table>
<thead>
<tr>
<th>Country of origin</th>
<th>Rams</th>
<th>Ave. milk BV, kg</th>
<th>BV range</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Netherlands</td>
<td>0137VOS, 1605, 287F, AXM316K, 0018Beksmar, AXM316H, 283F, Topaz</td>
<td>+54.4</td>
<td>+103.8 to +20.2</td>
</tr>
<tr>
<td>Sweden</td>
<td>B87, B49, B26, B40, B21, 998, Odo310, 78K, Nerton12F, Gar5074, 62K</td>
<td>+25.4</td>
<td>+58.9 to -14.9</td>
</tr>
<tr>
<td>Switzerland</td>
<td></td>
<td>+24.7</td>
<td>+62.2 to -18.3</td>
</tr>
</tbody>
</table>
Origins of Lacaune Genetics in North America

Switzerland – Embryos imported by Josef Regli of Ontario in 1996

U.K. (Dutch?) – Semen from 3 rams imported by the University of Wisconsin in 1998
Evaluation of Lacaune Lines

Estimated Breeding Values of Lacaune Rams Used at the University of Wisconsin

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<th>Rams</th>
<th>Ave. milk BV, kg</th>
<th>BV range</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.K. – Dutch?</td>
<td>Jacques, Pierre, Jean</td>
<td>+42.3</td>
<td>+76.8 to -13.9</td>
</tr>
<tr>
<td>Switzerland</td>
<td>5611ZGD, 5612ZGD, 5616ZGD</td>
<td>+15.9</td>
<td>+20.4 to +9.3</td>
</tr>
</tbody>
</table>
Origins of British Milk Sheep Genetics in North America

Why would new genetic material be beneficial?

North America producers could benefit from the effective genetic improvement programs with dairy sheep in many European countries.

Phenotypic trend for milk yield in the Lacaune nucleus flocks (AC) and commercial flocks (D)

Why would new genetic material be beneficial?

The North American industry could possibly benefit from new dairy breeds.

Assaf – high milk production, good prolificacy

Sarda – large cisternal capacity and fast milking
U.S. Importation Procedures

Importations are controlled by Veterinary Services, National Center for Import/Export, Animal and Plant Health Inspection Service, U.S. Department of Agriculture located at Riverdale, Maryland (APHIS).

APHIS is concerned about many foreign animal diseases, especially new strains of scrapie – all importing flocks must be enrolled in the Mandatory Scrapie Eradication Program.
U.S. Importation Procedures

APHIS must have a protocol in place, approved by both the U.S. and the exporting country, before an import permit will be issued.

Countries with approved protocols for importation of live breeding sheep, ram semen, or sheep embryos into the United States

<table>
<thead>
<tr>
<th>Country</th>
<th>Live breeding sheep</th>
<th>Ram semen</th>
<th>Sheep embryos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Iceland</td>
<td>No</td>
<td>Yes (pending)</td>
<td>No</td>
</tr>
</tbody>
</table>
U.S. Importation Procedures

If an approved protocol is not in place, a senior veterinary official from the exporting country needs to negotiate a protocol with APHIS.

Example: Current U.K. semen protocol:
1. U.K. free of Foot-and-Mouth Disease and Rinderpest
2. Donor is part of the national flock for 60 – 90 days
3. No Scrapie in flock of origin during life of the donor
4. U.K. has a national Scrapie control program
5. Donor negative for Brucella, Maedi-Visna (OPP), and Tuberculosis both before and after collection
6. Donor was not in Bluetongue area or tested negative
U.S. Importation Procedures

If an approved protocol is in place, an application for an import permit is submitted to APHIS on VS Form 17-129.

1. $94.00 application fee
2. Airline and flight number
3. Shipping date and arrival date – permit is only good for 14 days from the shipping date
4. Port of entry
5. Under “Remarks”, give your Mandatory Scrapie Eradication Program or Voluntary Scrapie Flock Certification Program flock number.
U.S. Importation Procedures

The offices of your State Veterinarian and/or the USDA/APHIS Veterinarian located in each state should be able to assist you in the import procedure.