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**Use of foreign EBVs in genetic evaluation :
example of French EBVs conversion
in the Canadian Swine Improvement Program**

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Abstract

International evaluations and comparisons have been widely used in cattle breeding schemes for many years. In swine breeding programs, the use of foreign genes is less common, and few examples of international comparisons exist. Imports of animals and semen, and more recently, embryo transfers, allowed the use of French Large White and Landrace genes in Canada. At the same time, A major issue was that the imported boars or semen didn't have Canadian breeding values before having progeny tested in Canada, which could take a long time, especially for sow productivity traits. To address this problem, an agreement was made between the French Pig Technical Institute and the Canadian Centre for Swine Improvement, to exchange EBVs for animals with evaluation results in both countries. Several methods, among those used for dairy cattle, were investigated in order to develop a suitable method to convert French EBVs into Canadian equivalents useful in the Canadian genetic evaluation system. The analysis included 136 boars with progeny in France and in Canada. Conversion formulas were computed regarding EBVs for number of piglets born per litter, age and backfat thickness at 100 kg. There is evidence for a growing interest in this kind of study, in order to improve the reliability and accuracy of swine genetic evaluations, in the context of growing international exchange of genetic material.