Enhancements to be made in the Shorthorn GROUP BREEDPLAN Analysis, December 2008

A number of enhancements will be implemented to the BREEDPLAN software that is used to calculate EBVs for Shorthorn animals within the Summer 2009 Shorthorn GROUP BREEDPLAN analysis. These enhancements will all result in the calculation of improved BREEDPLAN EBVs and are part of the normal evolution of the BREEDPLAN software.

1. New analytical software

The increasing size of the Breed Society databases and the computational demands of the GROUP BREEDPLAN evaluation have required the development of more efficient analytical processes. The “solver” program is the statistical software behind the BREEDPLAN analysis that calculates the EBVs.

An updated “solver” program has been developed that has quicker processing speed (ie “works faster”) and makes better estimates of the breeding values, particularly for animals with limited performance and pedigree data. The effect of the new program is likely to be greatest when comparing animals across years (ie current vs historic), rather than within a year (ie contemporaries) and for traits that are less well recorded (eg mature cow weight) than the more widely recorded traits (eg growth traits).

2. Improved Calving Ease Analysis

The calving ease analysis has been modified to include additional depth in the pedigree information. This is to overcome limitations in pedigree structures that are associated with incomplete recording of calving difficulty scores.

As a result of this modification, Calving Ease EBVs may change significantly for some individual animals. Also, more spread and higher accuracies in the Calving Ease EBVs will be evident and more animals will have Calving Ease EBVs calculated and reported. Given the importance of calving ease in three of the Shorthorn Selection Indexes (i.e. Domestic Supermarket, Domestic Restaurant, Export Maternal), this change will also impact on the Selection Index values of some animals.

3. Updated Genetic Base

The genetic base is an historical group of animals that forms the benchmark within the Shorthorn BREEDPLAN analysis. The genetic base group currently used within the Shorthorn GROUP BREEDPLAN analysis is defined as all animals born in 1988. The genetic base will be updated to a more recent group of animals, this being all animals born in 1995. This will provide a more effective genetic base, especially in benchmarking more recently generated EBVs such as Carcase EBVs (i.e. more animals have Carcase EBVs in 1995 born compared to 1988 born animals).

Should you have any queries regarding any of the enhancements that will be implemented into the BREEDPLAN software or any resulting changes, please do not hesitate to contact Christian Duff at SBTS on (02) 6773 2472 or Brad Crook at Shorthorn BREEDPLAN on (02) 6773 5263.