Ruth will be AI’d to either the ‘Swans Lagoon’ or select Droughtmaster sires. This will provide strong genetic linkage, which is essential in the GROUP BREEDPLAN analysis.

The inclusion of the ‘Swans Lagoon’ herd in Droughtmaster GROUP BREEDPLAN will also provide an excellent opportunity for the demonstration and expansion of another tropically adapted performance tested genotype and provide effective selection information for the northern beef cattle industry.

All involved in this program are waiting in anticipation for the first genetic comparisons of performance between calves from the ‘Swans Lagoon’ and Droughtmaster sires. This will occur mid-2006.

For further information on the ‘Swans Lagoon’ Breeding program or Droughtmaster GROUP BREEDPLAN:

Christian Duff
Tropical Beef Technology Services
Rockhampton. Tel.: 07 4927 6066
tcts@bigpond.com

Alan Laing
Dep. of Primary Industries and Fisheries
Ayr. Tel.: 07 4783 2355
alan.laing@dpi.qld.gov.au

Table 1: Data used to show how the SS EBVs are derived:

<table>
<thead>
<tr>
<th>Bull Tag</th>
<th>Sire</th>
<th>Raw SS</th>
<th>Age (days)</th>
<th>Age Dam</th>
<th>Adj SS</th>
<th>SS EBV</th>
</tr>
</thead>
<tbody>
<tr>
<td>618</td>
<td>W Watabull</td>
<td>42</td>
<td>394</td>
<td>5</td>
<td>43</td>
<td>+1.1</td>
</tr>
<tr>
<td>574</td>
<td>W Watabull</td>
<td>34</td>
<td>445</td>
<td>6</td>
<td>33</td>
<td>-1.0</td>
</tr>
<tr>
<td>582</td>
<td>C Alfie</td>
<td>39</td>
<td>441</td>
<td>5</td>
<td>38</td>
<td>+0.2</td>
</tr>
<tr>
<td></td>
<td>Breed Average (2002 drop)</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adj SS: Adjusted scrotal size is the raw scrotal circumference measurement adjusted for both the age of the animal at measurement and the age of the animal’s dam. Measurements are adjusted to that from a standard 400-day old animal born from a 5-year old dam.

SS EBV: The Estimated Breeding Value for Scrotal Size is based on differences in the adjusted scrotal sizes of animals and also takes account of the heritability of scrotal size. Heritability is a measure of the proportion of the differences between animals within a management group, which is genetically controlled and will therefore be passed on to progeny. The heritability of scrotal size is 0.40 or 40%, which is why EBV differences are considerably less than differences in adjusted measurements. The remaining 60% of the measured difference is due to the environment and measurement errors.

BREEDPLAN Extension

Team work gets the message across

This February over 110 producers attended a BREEDPLAN focused field day which was run at Neil and Rosalie Watson’s property ‘Watasanta’, Tamworth.

Neil and Rosalie Watson have been members of Santa Gertrudis BREEDPLAN since 1999. They started with John Bertram (Goondiwindi DPI&F) in the yards explaining the relationship between and animals and genetic differences. Four heifers were used to explain how basic genetic differences (or EBVs) are created. Their raw weights were adjusted for age and then converted to in principle EBVs. John interacted with the audience to discuss other factors that can affect raw performance (such as nutrition and age of dam) as well as traits that are economically important in breeding programs.

David Greenup, ‘Rosevale Santa Gertrudis’, Jandowae, then used the groups of animals and experiences from ‘Rosevale’ to further explain how EBVs are calculated and interpreted. For example, David explained the scrotal size EBV using a group of yearling bulls and the data used to derive their EBVs (Table 1).

The evidence that EBVs are a powerful female selection tool was shown when a group of 3 cows and calves (by the same sire) where bought into the yards. The raw performance of the calves mimicked the yearling bulls and the data used to derive their EBVs (Table 1).

In the pictures above:
Top: The audience at the “Watasanta” field day

In the pictures above:
Top: The audience at the “Watasanta” field day

However, David Greenup then raised an interesting experience from a field day at ‘Rosevale’ in 2004. Two yearlings bulls were bought into the yards, one being obviously more eye appealing than the other. He asked the audience to pick which bull they would prefer to take home. With their eyes being their only selection tool 95% of the audience selected the more eye appealing bull. David then surprised the audience by announcing they were identical twins (from a recent DNA profile). The difference in looks came about from one being fed a concentrated ration for a couple of months and the other being on natural pasture while running with full cows. In this situation, which could be extrapolated to many bull sales, the majority of the producers paid for the feed not the genetics.

Other topics discussed were data quality (Michael Rush, BREEDPLAN), Proof of profit using EBVs (Christian Duff and John Bertram) as well as fertility and structural selection points in bulls (John Bertram, Burnett Joyce, ‘Gyanda Santa Gertrudis’ and Anthony Coates, ‘Edsvold Station Santa Gertrudis’).

All speakers involved were very interactive with the audience and constructive discussions took place throughout the entire day.

Christian Duff

Any BREEDPLAN member interested in running a BREEDPLAN focused field day on farm can contact: BREEDPLAN 02 6773 3555, Christian Duff, TBTS 07 4927 6066 or their association.