ASBA TECHNICAL NEWS

NATIONAL CARCASE DATA SERVICE

SUMMARY

Sandy Yeates, 11th April, 1996

DOMESTIC MARKET CATTLE

The following data has been retrieved from 5129 domestic trade carcases of which 3810 were steers, 1316 heifers and 3 were unknown. 3010 head were grain fed 1243 grass fed and the remaining 876,.were not known.

Of the 5129 head, 369 were Angus, 3440 Hereford, 855 Shorthorn, 25 Simbrah, 103 Simmental, 113 Simmental X and 24 Simmental X Hereford.

DESCRIPTION	MEAN	SIMBRAH	SIM	SIM X	SIM x
number	5129	25	103	313	2
HCW	225(111-332)	222(200-249)	228(173-284)	224(183-286)	249(18
Dent.	0.6	0.1	0.4	0.1	1.
Fat (P8)	12.4(1-40)	8.0(4-40)	9.3(3-26)	8.7(2-28)	12.1(
Meat Colour	0.9	0.9	0.6	0.8	0.
Meat pH	5.5	5.5	5.4	5.5	5.
Fat Colour	0.7	0.0	0.0	0.0	0.
EMA	63.3(27.135)	74.7(63-86)	72.5(45-99)	71.2(52-135)	62.7(5
Marbling	1.1	1.0	1.0	1.0	1.

CONCLUSIONS

1. The eye muscle areas of all these carcases was excellent at these carcase weights. All Simmental infused cattle exhibited substantially larger EMAs than the mean of 63.3sq cm.
2. There was enormous variation in fat depth at the rump (P8) site as demonstrated by the range of 1-40 mm – a range which creates incredible problems for processors and retailers. The Simmental influence not only lowered absolute fat levels but also helped to reduce overall variation.
3. The combined effect of larger EMAs and lower P8 fat levels would undoubtedly contribute to significantly higher saleable meat yields in Simmental infused carcases.
4. The data indicates Simmental infused carcases had whiter fat than the mean.
5. There is not enough variation in the other carcase traits to draw meaningful conclusions.

EXPORT MARKET CATTLE

A total of 944 export carcases comprised 200 Angus, 563 Hereford , 39 Shorthorn, 52 Simmental, 29 Simmental X and 63 SimmentalXHereford cattle. Of these 702 were grainfed (99 *for* 180 days +) and 244 were pasture finished.

DESCRIPTION	MEAN	SIM	SIM x	SIM x HER

Number	944	52	29	63
HCW	389(224-569)	372(322-444)	429(364-500)	392(313-471)
Dent.	4.2	4.2	2.5	3.5
Fat (P8)	23.2(2-50)	17.0(6-26)	16.5(8-77)	19.9(8-48)
Meat Colour	0.4	0.4	0.6	0.6
Meat pH	5.4	5.4	5.5	5.5
Fat Colour	0.3	0.1	0.3	0.5
EMA	71.0(48-105)	80.0(63-105)	78.7(62-100)	71.1(48-92)
Marbling	1.6	1.6	1.4	1.2

CONCLUSIONS

1. Eye muscle areas for Simmental and Sim X carcases were larger than the mean of 71 sq cm. SimxHer carcases had EMAs which unexpectedly were similar to the overall mean, but with EMAs as low as 48 sq cm and fat levels as high as 48mm it appears-there were some very ordinary cattle in this category
2. Simmental infused cattle had carcases with significantly lower levels of fat at the P8 rump site. They also had less variability in their finish. The minimum fat levels in brackets show that the Simmental infused cattle was 6mm for pure and 8mm for SIM crosses compared with only 2mm for the mean of all animals. This was achieved at lower maximum fat values.
3. Large variability in such important traits as EMA and fat depth is a headache for processors trying to box meat to specification. Since the majority of these cattle were grain fed much of this variation would appear to be **genetic** in origin. This presents an obvious challenge to seedstock/stud breeders to place more emphasis on EMA/muscling and on the maturity and finish of their **bulls**
4. There is not enough variability in the other traits to **draw meaningful** conclusions. The percentage of Simmental blood is not known, which means the SIMxHER crosses may only have a *small* infusion which may account for the anomaly of having an average EMA no larger than the mean, and up to 48 mm of fat, which seems incomprehensible for a SIM cross.