Reproductive Performance of Caprine Feral Does Mated to Boer or Feral Bucks in Semi-Arid Queensland

D.O. Kleemann[1], S.P. Quigley[1], R. Bright[2] and A.W. Mills[2]

[1]Sheep and Wool Institute, Department of Primary Industries, Longreach Qld 4730

[2]Sheep and Wool Institute, Department of Primary Industries, Charleville Qld 4470

A strong world demand and current firm prices for goat meat provides opportunities for some wool/beef production enterprises in western Queensland to increase farm viability through diversification. In particular, there is rising interest in the use of Boer goats to improve productive performance of the Australian feral goat. Pastoral graziers have noted the high prolificacy of feral goats grazed in semi-arid areas, but there is no information on the breeding ability of feral does mated to Boer bucks.

One hundred and sixty 1.5-4.5 year old feral does and three 1.5 year-old feral bucks were sourced from south west Queensland, while three 1.5 year-old Boer bucks were purchased from a stud. All animals were assembled at Croxdale Research Station, Charleville, Queensland by October 1997. Two treatments were imposed with feral does mated to Boer or feral bucks in March–May 1998 and 1999. New feral bucks were mated in the second year. Does from both treatments were grazed together at all times except during the eight week mating period. Immediately before joining, two groups of does were selected at random from within groups stratified on the basis of age and liveweight. All does were scanned via ultrasonography approximately 100 days after the commencement of joining to determine number of fetuses. Number of kids present at the end of kidding was recorded. Discrete data were analysed using the procedure CATMOD in SAS (1996).

Table 1. Reproductive performance of feral does mated to either Boer or feral bucks

Year and Breed of buck	Number of does pregnant of does joined (%)	Number of kids per pregnant does (%)	Survival of kids from mid pregnancy to marking (%)	Number of kids per 100 does joined
1998				
Boer	91.4	1.53	84.9 a	119
Feral	90.8	1.59	96.6 b	139
1999				
Boer	93.4	1.55	89.1	129
Feral	93.4	1.58	91.1	132

Values within year and breed with different letters are significantly different ($P<0.05$).

There was no effect of breed of buck ($P>0.05$) on either pregnancy rate or fetuses per pregnancy. A breed x year interaction ($P<0.07$) indicated that survival of feral kids was higher ($P<0.01$) than that of Boer x feral kids in 1998 but not in 1999. This resulted in a higher percentage of feral kids present at marking (139%) compared with Boer x feral kids (119%). Reasons for the breed difference in survival are unknown, but we speculate that a higher proportion of the Boer x feral progeny may have had a white coat colour making them easier to recognise by predators. Caution should be used in interpreting the results because of the small sample of bucks used to represent the breeds. However, preliminary results indicate that in some years a mating system where feral bucks are joined to feral does may be superior reproductively compared with a system where Boer bucks are mated to feral does.

SAS. 1989. SAS User's Guide, Statistics. SAS Institute Incorporated, Cary, North Carolina.

Email: kleemann.dave@saugov.sa.gov.au