TICK RESISTANCE IN SAHIWAL CATTLE

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Bos indicus cross cattle are now widely used in the cattle tick *(Boophilus microplus)* infested areas of Queensland . Beef producers state tick resistance as the main reason for adopting these genotypes (Elder *et al.* 1979). While the Brahman is the most common source of *Bos indicus* genes, the Sahiwal and Africander are alternative sources. Much is known of the tick resistance of Brahman and Africander derived breeds (Utech *et al.* 1978a), but relatively little has been published on the Sahiwal and its crosses.

At Brian Pastures Research Station, near Gayndah, Queensland, tickresistance of Sahiwal x British cross animals of different levels of Sahiwal infusion was assessed. Four groups of animals with previous exposure to ticks were infested once (in late summer) with c. 20,000 tick larvae. Numbers of engorging female ticks were counted on one side of each animal on days 18-22 following infestation. Resistance levels were calculated as the percentage of female larvae which failed to survive to maturity. Results are presented according to the method of Utech et *al.* (1978a) and given in Table 1.

TABLE 1 Resistance (R) and frequency distribution of resistance to cattle tick in four groups of cattle of varying Sahiwal content

Class	Sahiwal content	n	Mean R (%)	Resistance levels 95% limits	Frequency of resistance (%) High 98	Moderate 95 - 98	Low 90 - 95	Very low 90
18 mth bulls	0.75	7	99.9[a†]	99.6 - 99.9	100	-	-	-
18 mth bulls	0.38	21	98.6[b]	97.8 - 99.1	61	35	4	-
30 mth P, NL females	0.38	16	97.7[b]	96.7 - 98.5	35	41	24	-
30 mth NP, L females	0.38	14	95.7[c]	93.2 - 97.4	15	54	23	8

P = Pregnant NP = Non Pregnant L = Lactating NL = Non Lactating
† Means not followed by a common superscript differ significantly ($P < 0.05$).

The resistance levels compare favourably with levels for *Bos indicus* and *Bos indicus* derived genotypes reported by Utech *et al,* (1978b), indicating that Sahiwal crosses would be at least as tick resistant as comparable Brahman crosses. In the absence of a non-pregnant, non-lactating group it would be unwise to draw any conclusions, however, it is reasonable to assume (Utech *et al.* 1978a) that both pregnancy and lactation stress lowered the resistance in females.

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