















Table 5. Means  $\pm$  S.E. for colour of semen affect on semen parameters of different local genetic groups of roosters and their crosses with Isa Brown:

Semen Parameters	Colour of Semen		
	Watery	Milky	Creamy
	No. (33)	No. (46)	No. (13)
Ejaculate Volume (ml)	0.308 $\pm$ 0.02 b	0.405 $\pm$ 0.02 a	0.400 $\pm$ 0.07 a
Sperm Concentration (n*10 <sup>9</sup> )/ml	3.37 $\pm$ 0.24 b	4.92 $\pm$ 0.25 a	5.66 $\pm$ 0.39 a
Live Sperm %	91.72 $\pm$ 0.62 a	90.99 $\pm$ 0.64 a	91.70 $\pm$ 1.41 a
Abnormal Sperm %	13.55 $\pm$ 0.93 b	11.80 $\pm$ 0.70 b	8.82 $\pm$ 0.84 a
Mass Motility %	65.64 $\pm$ 2.49 b	68.65 $\pm$ 2.01 ab	74.54 $\pm$ 3.63 a
Individual Motility %	72.76 $\pm$ 2.41 a	77.00 $\pm$ 1.98 a	77.85 $\pm$ 3.92 a
pH value	7.14 $\pm$ 0.03 a	7.12 $\pm$ 0.02 a	7.10 $\pm$ 0.05 a
Wattle Length (mm)	54.06 $\pm$ 1.85 a	57.55 $\pm$ 1.56 a	52.71 $\pm$ 2.75 a
Wattle Width (mm)	45.51 $\pm$ 1.46 a	47.28 $\pm$ 1.29 a	45.98 $\pm$ 2.23 a

Means not having a common letter within each row differ significantly (P<0.05).

Table 6. Means  $\pm$  S.E. for colour of wattles affect on semen parameters of different local genetic Groups of roosters and their crosses with Isa Brown:

Semen Parameters	Colour of Wattles		
	Red	Redden White	Brown
	No. (60)	No. (28)	No. (4)
Ejaculate Volume (ml)	0.382 $\pm$ 0.02 a	0.344 $\pm$ 0.03 a	0.370 $\pm$ 0.08 a
Sperm Concentration (n*10 <sup>9</sup> )/ml	4.75 $\pm$ 0.24 a	3.90 $\pm$ 0.27 a	4.28 $\pm$ 0.76 a
Live Sperm %	90.61 $\pm$ 0.56 a	92.54 $\pm$ 0.67 a	94.31 $\pm$ 1.70 a
Abnormal Sperm %	12.07 $\pm$ 0.58 a	12.33 $\pm$ 1.16 a	8.86 $\pm$ 1.48 a
Mass Motility %	67.93 $\pm$ 1.66 a	68.46 $\pm$ 3.18 a	75.00 $\pm$ 3.14 a
Individual Motility %	75.47 $\pm$ 1.69 a	75.21 $\pm$ 2.99 a	80.25 $\pm$ 3.25 a
pH value	7.12 $\pm$ 0.02 a	7.13 $\pm$ 0.03 a	7.15 $\pm$ 0.09 a
Wattle Length (mm)	56.75 $\pm$ 1.26 ab	51.81 $\pm$ 2.16 b	65.29 $\pm$ 3.84 a
Wattle Width (mm)	46.92 $\pm$ 1.08 ab	44.47 $\pm$ 1.57 b	53.48 $\pm$ 4.12 a

Means not having a common letter within each row differ significantly (P<0.05).