

Table 2. Physical diluted semen quality of NZW rabbit bucks, during incubation condition at 37⁰ C for up to 6 hours as affected by Gibberellic and Boric acid or both injection (Means $\pm$ SE).

Characteristics	Incubation period (Hrs.)	Acids injection				Means $\pm$ SE
		Control	Gibberellic	Boric	Gibberellic & Boric	
Advanced sperm motility (%)	0.0	60.84 $\pm$ 2.48	68.72 $\pm$ 2.93	74.71 $\pm$ 2.79	77.92 $\pm$ 3.12	70.55 $\pm$ 2.69 ^A
	2.0	52.37 $\pm$ 2.14	65.38 $\pm$ 2.51	66.96 $\pm$ 2.54	73.84 $\pm$ 2.51	64.64 $\pm$ 2.17 ^B
	4.0	44.36 $\pm$ 1.74	58.18 $\pm$ 2.11	66.01 $\pm$ 2.04	70.84 $\pm$ 2.37	59.85 $\pm$ 2.09 ^C
	6.0	35.46 $\pm$ 1.83	50.74 $\pm$ 2.17	61.37 $\pm$ 1.96	66.19 $\pm$ 2.13	53.44 $\pm$ 1.79 ^D
Means $\pm$ SE		48.26 $\pm$ 1.96 ^d	60.76 $\pm$ 2.24 ^c	67.26 $\pm$ 2.47 ^b	72.20 $\pm$ 2.42 ^a	62.12 $\pm$ 2.03
Storage ability (%)		58.28 $\pm$ 2.82 ^c	73.84 $\pm$ 3.31 ^b	82.14 $\pm$ 3.29 ^a	84.95 $\pm$ 3.54 ^a	74.80 $\pm$ 3.14
Dead spermatozoa (%)	0.0	26.61 $\pm$ 1.35	22.68 $\pm$ 1.13	17.73 $\pm$ 1.09	15.59 $\pm$ 1.08	20.65 $\pm$ 1.09 ^D
	2.0	30.41 $\pm$ 1.48	25.73 $\pm$ 1.44	19.69 $\pm$ 1.16	16.61 $\pm$ 1.00	23.11 $\pm$ 1.26 ^C
	4.0	35.74 $\pm$ 1.96	29.24 $\pm$ 1.57	21.71 $\pm$ 1.17	18.73 $\pm$ 1.03	26.36 $\pm$ 1.42 ^B
	6.0	39.91 $\pm$ 2.36	32.99 $\pm$ 2.09	24.82 $\pm$ 1.68	21.17 $\pm$ 1.47	29.72 $\pm$ 1.71 ^A
Means $\pm$ SE		33.17 $\pm$ 1.58 ^a	27.66 $\pm$ 1.37 ^b	20.99 $\pm$ 1.21 ^c	18.03 $\pm$ 1.10 ^d	24.96 $\pm$ 1.28
Sperm abnormalities (%)	0.0	21.36 $\pm$ 1.17	17.14 $\pm$ 0.97	15.13 $\pm$ 0.86	13.98 $\pm$ 0.74	16.90 $\pm$ 0.92 ^B
	2.0	22.71 $\pm$ 1.25	18.16 $\pm$ 1.08	15.58 $\pm$ 0.84	14.21 $\pm$ 0.87	17.67 $\pm$ 0.95 ^B
	4.0	23.98 $\pm$ 1.22	19.27 $\pm$ 1.11	16.35 $\pm$ 1.00	14.73 $\pm$ 0.82	18.58 $\pm$ 1.04 ^B
	6.0	28.14 $\pm$ 1.37	24.19 $\pm$ 1.29	18.31 $\pm$ 1.15	14.77 $\pm$ 0.99	21.35 $\pm$ 1.07 ^A
Means $\pm$ SE		24.05 $\pm$ 1.23 ^a	19.69 $\pm$ 1.04 ^b	16.34 $\pm$ 0.87 ^c	14.42 $\pm$ 0.83 ^d	18.63 $\pm$ 0.97
Acrosomal damages (%)	0.0	18.73 $\pm$ 1.12	15.84 $\pm$ 0.93	14.27 $\pm$ 0.84	11.86 $\pm$ 0.69	15.18 $\pm$ 0.81 ^C
	2.0	20.84 $\pm$ 1.26	18.21 $\pm$ 1.13	15.31 $\pm$ 0.92	12.49 $\pm$ 0.81	16.71 $\pm$ 1.04 ^C
	4.0	24.91 $\pm$ 1.36	21.40 $\pm$ 1.24	17.40 $\pm$ 1.15	13.67 $\pm$ 0.82	19.35 $\pm$ 1.11 ^B
	6.0	27.01 $\pm$ 1.33	25.14 $\pm$ 1.42	20.69 $\pm$ 1.14	14.85 $\pm$ 0.94	21.92 $\pm$ 1.19 ^A
Means $\pm$ SE		22.87 $\pm$ 1.15 ^a	20.15 $\pm$ 1.01 ^b	16.92 $\pm$ 0.91 ^c	13.22 $\pm$ 0.77 ^d	18.29 $\pm$ 0.94

Means bearing different letter superscripts (a,b,c,d) within the same row or (A,B,C,D) within the same column within each trait are significantly ($P \leq 0.05$ or 0.01) different.

Table 3. Physical diluted semen quality of NZW rabbit bucks, during chilled storage at (4-6)⁰ C for up to 3 days as affected by Gibberellic and Boric acid or both injection (Means $\pm$ SE).

Characteristics	Chilled storage (Days.)	Acids injection				Means $\pm$ SE
		Control	Gibberellic	Boric	Gibberellic & Boric	
Advanced sperm motility (%)	0.0	60.11 $\pm$ 2.44	68.13 $\pm$ 2.91	74.22 $\pm$ 2.72	77.31 $\pm$ 3.04	69.94 $\pm$ 2.55 ^A
	1.0	50.62 $\pm$ 2.01	63.17 $\pm$ 2.36	64.99 $\pm$ 2.50	70.19 $\pm$ 2.39	62.24 $\pm$ 2.01 ^B
	2.0	49.92 $\pm$ 1.70	52.74 $\pm$ 2.03	61.27 $\pm$ 2.22	66.27 $\pm$ 2.41	57.55 $\pm$ 1.91 ^C
	3.0	31.16 $\pm$ 1.80	44.72 $\pm$ 1.77	53.19 $\pm$ 1.94	59.68 $\pm$ 2.11	47.19 $\pm$ 1.54 ^D
Means $\pm$ SE		47.95 $\pm$ 1.74 ^d	57.19 $\pm$ 2.20 ^c	63.42 $\pm$ 2.17 ^b	68.36 $\pm$ 2.33 ^a	59.23 $\pm$ 1.94
Storage ability (%)		51.84 $\pm$ 2.71 ^c	65.64 $\pm$ 2.86 ^b	71.67 $\pm$ 3.11 ^a	77.20 $\pm$ 3.24 ^a	74.80 $\pm$ 2.84
Dead spermatozoa (%)	0.0	27.06 $\pm$ 1.39	22.99 $\pm$ 1.05	18.11 $\pm$ 1.06	15.72 $\pm$ 1.06	20.97 $\pm$ 1.14 ^D
	1.0	31.16 $\pm$ 1.77	27.22 $\pm$ 1.49	21.86 $\pm$ 1.25	16.99 $\pm$ 1.17	24.31 $\pm$ 1.21 ^C
	2.0	37.85 $\pm$ 1.94	31.55 $\pm$ 1.71	23.79 $\pm$ 1.35	20.69 $\pm$ 1.33	28.47 $\pm$ 1.36 ^B
	3.0	42.73 $\pm$ 2.24	35.07 $\pm$ 2.12	27.96 $\pm$ 1.57	23.41 $\pm$ 1.82	32.29 $\pm$ 1.79 ^A
Means $\pm$ SE		34.70 $\pm$ 1.67 ^a	29.21 $\pm$ 1.33 ^b	22.93 $\pm$ 1.26 ^c	19.20 $\pm$ 1.04 ^d	26.51 $\pm$ 1.28
Sperm abnormalities (%)	0.0	21.42 $\pm$ 1.14	17.16 $\pm$ 1.12	15.36 $\pm$ 0.91	13.95 $\pm$ 0.85	16.98 $\pm$ 1.13 ^B
	1.0	22.84 $\pm$ 1.29	18.34 $\pm$ 1.07	15.55 $\pm$ 0.93	14.27 $\pm$ 0.90	17.75 $\pm$ 1.20 ^B
	2.0	24.05 $\pm$ 1.47	19.51 $\pm$ 1.28	16.39 $\pm$ 1.11	14.99 $\pm$ 1.08	18.74 $\pm$ 1.17 ^B
	3.0	28.47 $\pm$ 1.59	24.21 $\pm$ 1.33	18.49 $\pm$ 1.11	15.41 $\pm$ 1.12	21.65 $\pm$ 1.34 ^A
Means $\pm$ SE		24.20 $\pm$ 1.29 ^a	19.81 $\pm$ 1.07 ^b	16.45 $\pm$ 0.99 ^c	14.66 $\pm$ 0.74 ^d	18.78 $\pm$ 1.11
Acrosomal damages (%)	0.0	19.82 $\pm$ 1.28	16.41 $\pm$ 0.88	14.32 $\pm$ 0.87	11.97 $\pm$ 0.75	15.63 $\pm$ 0.82 ^C
	1.0	21.24 $\pm$ 1.28	19.03 $\pm$ 1.03	16.18 $\pm$ 0.86	13.21 $\pm$ 0.69	17.42 $\pm$ 0.97 ^C
	2.0	26.17 $\pm$ 1.44	23.27 $\pm$ 1.26	19.63 $\pm$ 1.11	15.88 $\pm$ 1.10	21.24 $\pm$ 1.25 ^B
	3.0	31.01 $\pm$ 1.85	28.49 $\pm$ 1.61	23.51 $\pm$ 1.59	17.94 $\pm$ 1.33	25.24 $\pm$ 1.34 ^A
Means $\pm$ SE		24.56 $\pm$ 1.33 ^a	21.80 $\pm$ 1.14 ^b	18.41 $\pm$ 0.98 ^c	14.75 $\pm$ 0.79 ^d	19.88 $\pm$ 0.97

Means bearing different letter superscripts (a, b, c) within the same row or (A, B, C) within the same column within each trait are significantly ($P \leq 0.05$ or 0.01) different.