

Table (1): Mean percentage of motility of buffalo spermatozoa either non-washed or washed supplemented with various concentrations of caffeine, during storage at 5°C and incubation at 37°C.

Storage time (day)	Incubation time (hour)	Non-washed semen	Washed semen Caffeine concentration (mM/100ml)			
			0	2	4	8
0	0	60.18 ± 1.25 ^a	67.38 ± 1.72 ^a	73.11 ± 1.65 ^b	73.68 ± 1.83 ^b	71.26 ± 1.35 ^b
	1	58.75 ± 1.33 ^a	65.10 ± 1.65 ^a	86.24 ± 1.73 ^a	83.75 ± 1.42 ^a	80.17 ± 1.23 ^a
	2	48.42 ± 1.45 ^b	55.16 ± 1.72 ^b	80.15 ± 1.24 ^c	75.92 ± 1.55 ^b	62.68 ± 2.10 ^c
Means		55.78 ± 3.71 ^{aD}	62.55 ± 3.75 ^{aC}	79.83 ± 3.79 ^{cA}	77.78 ± 3.05 ^{bcA}	71.37 ± 5.05 ^{abB}
1	0	58.81 ± 1.25 ^a	67.16 ± 1.37 ^a	85.06 ± 1.62 ^a	83.24 ± 1.32 ^b	75.13 ± 1.62 ^b
	1	56.22 ± 1.22 ^a	63.15 ± 1.26 ^b	88.72 ± 1.28 ^a	88.45 ± 1.47 ^a	80.07 ± 1.66 ^a
	2	50.11 ± 1.43 ^b	58.47 ± 1.50 ^c	86.28 ± 1.18 ^a	86.19 ± 1.52 ^{ab}	67.85 ± 1.08 ^c
Means		55.05 ± 2.58 ^{aD}	62.93 ± 2.51 ^{aC}	86.69 ± 1.08 ^{aA}	85.96 ± 1.51 ^{aA}	74.35 ± 3.55 ^{ab}
2	0	52.50 ± 1.38 ^a	60.13 ± 1.34 ^a	82.35 ± 1.85 ^b	80.42 ± 1.75 ^b	67.86 ± 1.55 ^b
	1	47.53 ± 1.17 ^b	58.74 ± 1.84 ^a	86.28 ± 1.50 ^a	85.62 ± 1.36 ^a	76.25 ± 1.42 ^a
	2	38.72 ± 1.62 ^c	45.16 ± 1.92 ^b	76.25 ± 2.16 ^c	76.18 ± 1.30 ^c	65.18 ± 1.82 ^b
Means		46.25 ± 4.03 ^{bD}	54.68 ± 4.78 ^{bC}	81.63 ± 2.92 ^{bA}	80.74 ± 2.73 ^{bA}	69.76 ± 3.33 ^{ab}
4	0	42.81 ± 2.08 ^a	55.76 ± 2.04 ^a	77.48 ± 1.40 ^b	75.38 ± 1.36 ^b	62.58 ± 1.35 ^b
	1	41.23 ± 1.17 ^a	53.92 ± 1.31 ^a	81.26 ± 1.59 ^a	81.14 ± 1.40 ^a	72.23 ± 1.42 ^a
	2	32.56 ± 1.18 ^b	47.35 ± 1.82 ^b	73.32 ± 0.97 ^c	73.16 ± 1.26 ^b	60.12 ± 1.75 ^b
Means		38.87 ± 3.19 ^{cD}	52.34 ± 2.55 ^{bC}	77.35 ± 2.29 ^{cA}	76.56 ± 2.38 ^{cA}	64.98 ± 3.70 ^{cb}
6	0	42.38 ± 1.16 ^a	50.88 ± 1.55 ^a	72.52 ± 1.13 ^b	72.46 ± 1.15 ^b	57.64 ± 2.00 ^b
	1	35.41 ± 1.15 ^b	46.28 ± 1.18 ^b	78.80 ± 1.27 ^a	78.72 ± 1.16 ^a	62.48 ± 1.52 ^a
	2	27.59 ± 2.13 ^c	35.29 ± 1.24 ^c	62.36 ± 2.01 ^c	62.18 ± 1.80 ^c	50.17 ± 1.75 ^c
Means		35.13 ± 4.27 ^{dD}	44.15 ± 4.63 ^{cC}	71.23 ± 4.79 ^{dA}	71.12 ± 4.82 ^{dA}	56.76 ± 3.58 ^{dB}
Overall means		46.22 ± 4.16 ^D	55.33 ± 3.49 ^C	79.35 ± 2.54 ^A	78.43 ± 2.44 ^A	67.44 ± 3.07 ^B

A-D: Means with different superscripts in the same row, differ significantly (P < 0.05).

a-d: Means with different superscripts in the same column, differ significantly (P < 0.05).

Table (2): Mean percentage of dead of buffalo spermatozoa either non-washed or washed supplemented with various concentrations of caffeine, during storage at 5°C and incubation at 37°C.

Storage time (day)	Incubation time (hour)	Non-washed semen	Washed semen Caffeine concentration (mM/100ml)			
			0	2	4	8
0	0	23.84 ± 1.87b	19.23 ± 1.65 ^b	12.54±1.40 ^b	12.82±1.11 ^b	16.65±1.20 ^b
	1	25.72 ± 2.16b	20.14 ± 2.10 ^b	13.50±1.72 ^{ab}	13.75±0.97 ^{ab}	17.25±1.18 ^b
	2	32.18 ± 2.05a	25.78 ± 1.08 ^a	15.27±1.65 ^a	16.18±1.56 ^a	20.24±1.05 ^a
Means		27.25 ± 2.53dA	21.72 ± 2.05 ^{dB}	13.77±0.80 ^{dD}	14.25±1.00 ^{CD}	18.05±1.11 ^{dc}
1	0	25.76 ± 1.89b	20.13 ± 1.40 ^b	13.50±1.25 ^b	13.76±1.29 ^b	17.68±1.16 ^b
	1	26.23 ± 1.11b	21.25 ± 1.24 ^b	14.13±1.20 ^{ab}	14.75±1.20 ^{ab}	19.08±1.20 ^b
	2	33.81 ± 1.43a	26.31 ± 1.38a	15.22±1.17 ^a	16.27±1.82 ^a	22.14±1.82 ^a
Means		28.60 ± 2.61dA	22.56 ± 1.90 ^{dB}	14.28±0.50 ^{cd}	14.93±0.73 ^{CD}	19.63±1.32 ^{dc}
2	0	28.73 ± 1.72b	23.22 ± 2.13 ^b	14.06±1.26 ^b	15.17±1.47 ^b	19.25±1.15 ^b
	1	31.26 ± 1.20b	25.28 ± 1.82 ^b	16.75±1.19 ^b	16.52±1.38 ^b	21.26±1.28 ^b
	2	39.12 ± 1.15a	31.42 ± 1.95 ^a	19.12±1.25 ^a	19.15±1.33 ^a	26.28±1.30 ^a
Means		33.04 ± 3.13cA	26.64 ± 2.46 ^{CB}	16.64±1.46 ^{CD}	16.95±1.17 ^{CD}	22.26±2.09 ^{CC}
4	0	34.06 ± 1.30c	27.16 ± 1.81 ^c	17.32±1.23 ^c	17.42±1.18 ^c	22.75±2.02 ^c
	1	38.22 ± 1.55b	30.15 ± 1.72 ^b	20.43±1.16 ^b	20.54±1.25 ^b	26.81±1.18 ^b
	2	45.52 ± 1.36a	36.73 ± 1.53 ^a	25.68±2.01 ^a	25.75±1.11 ^a	33.16±1.82 ^a
Means		39.27 ± 3.35bA	31.35 ± 2.83 ^{BB}	21.14±2.44 ^{DD}	21.24±2.43 ^{DD}	27.57±3.03 ^{bc}
6	0	40.72 ± 1.35c	34.51 ± 1.47 ^c	24.22±1.75 ^b	24.50±1.16 ^c	27.76±1.22 ^c
	1	44.81 ± 1.36b	37.62 ± 1.82 ^b	26.55±1.18 ^b	27.18±1.54 ^b	33.06±1.38 ^b
	2	50.48 ± 1.82a	46.10 ± 2.05 ^a	32.65±1.52 ^a	32.82±1.53 ^a	40.18±1.42 ^a
Means		45.34 ± 2.83aA	39.41 ± 3.46 ^{AB}	27.81±2.51 ^{AD}	28.17±2.45 ^{AD}	33.67±3.60 ^{ac}
Overall means		34.70 ± 3.39A	28.34 ± 2.25 ^B	18.73±2.62 ^D	19.11±2.57 ^D	24.24±2.86 ^C

A-D: Means with different superscripts in the same row, differ significantly (P < 0.05).

a-d: Means with different superscripts in the same column, differ significantly (P < 0.05).

Table (3): Mean percentage of abnormalities of buffalo spermatozoa either non-washed or washed supplemented with various concentrations of caffeine, during storage at 5°C and incubation at 37°C.

Storage time (day)	Incubation time (hour)	Non-washed semen	Washed semen Caffeine concentration (mM/100ml)			
			0	2	4	8
0	0	16.32±1.16 ^b	12.64±0.85 ^b	7.68±1.12 ^b	8.06±1.06 ^b	10.26±1.00 ^b
	1	18.13±1.20 ^b	13.15±0.91 ^b	8.75±0.92 ^{ab}	8.78±1.02 ^b	11.13±1.02 ^{ab}
	2	24.68±1.11 ^a	18.50±1.11 ^a	9.52±0.96 ^a	10.46±0.86 ^a	14.10±1.10 ^a
Means		19.71±2.54 ^{dA}	14.76±1.87 ^{dB}	8.65±0.53 ^{dD}	9.10±0.71 ^{dD}	11.83±1.16 ^{dC}
1	0	18.35±0.92 ^b	12.65±0.80 ^b	7.82±0.90 ^b	8.25±1.02 ^b	11.12±0.82 ^{ab}
	1	19.18±1.01 ^b	14.54±1.10 ^b	8.53±0.92 ^{ab}	9.28±1.04 ^{ab}	12.11±0.86 ^b
	2	26.20±1.06 ^a	19.16±1.02 ^a	9.92±0.85 ^a	10.75±1.05 ^a	15.20±0.92 ^a
Means		21.24±2.49 ^{dA}	15.45±1.93 ^{dB}	8.76±0.62 ^{dD}	9.43±0.73 ^{dD}	12.81±1.23 ^{dC}
2	0	20.52±1.06 ^c	15.12±0.86 ^b	8.76±0.92 ^c	9.50±1.12 ^b	12.14±0.92 ^c
	1	23.14±1.12 ^b	17.02±0.75 ^b	11.12±0.94 ^b	11.26±1.10 ^{ab}	15.09±1.00 ^b
	2	30.15±0.92 ^a	22.54±1.11 ^a	13.41±1.12 ^a	13.58±1.06 ^a	18.16±1.06 ^a
Means		24.60±2.88 ^{cA}	18.23±2.23 ^{cB}	11.10±1.34 ^{cD}	11.45±1.18 ^{cD}	15.13±1.74 ^{cC}
4	0	24.21±1.04 ^c	19.16±0.92 ^c	11.23±0.85 ^c	11.75±1.13 ^c	15.76±1.30 ^c
	1	28.76±1.12 ^b	22.17±1.01 ^b	13.86±0.91 ^b	15.10±1.16 ^b	19.50±1.15 ^b
	2	36.27±1.02 ^a	30.88±1.06 ^a	19.85±1.10 ^a	20.64±0.96 ^a	25.75±0.85 ^a
Means		29.75±3.52 ^{bA}	24.07±3.51 ^{bB}	14.98±2.55 ^{bD}	15.83±2.59 ^{bD}	20.34±2.91 ^{bC}
6	0	31.56±1.21 ^c	24.41±1.04 ^c	14.62±0.86 ^c	15.23±1.12 ^c	20.54±0.90 ^c
	1	35.05±1.15 ^b	27.16±1.11 ^b	16.78±0.93 ^b	18.05±1.16 ^b	25.28±0.86 ^b
	2	41.13±1.17 ^a	35.85±1.02 ^a	23.25±1.06 ^a	23.83±1.05 ^a	31.50±1.08 ^a
Means		35.91±2.80 ^{aA}	29.14±3.45 ^{aB}	18.22±2.59 ^{aD}	19.04±2.53 ^{aD}	25.77±3.17 ^{aC}
Overall means		26.24±2.97 ^A	20.33±2.75 ^B	12.34±1.86 ^D	12.97±1.93 ^D	17.18±2.60 ^C

A-D: Means with different superscripts in the same row, differ significantly (P < 0.05).

a-d: Means with different superscripts in the same column, differ significantly (P < 0.05).

Table (4): Mean percentage of acrosomal damage of buffalo spermatozoa either non-washed or washed supplemented with various concentrations of caffeine, during storage at 5°C and incubation at 37°C.

Storage time (day)	Incubation time (hour)	Non-washed semen	Washed semen Caffeine concentration (mM/100ml)			
			0	2	4	8
0	0	8.77±0.98 ^c	6.75±1.02 ^b	1.73±0.28 ^c	2.26±0.17 ^c	4.65±0.18 ^c
	1	10.65±1.01 ^b	7.64±0.64 ^b	2.75±0.53 ^b	3.05±0.38 ^b	5.62±0.12 ^b
	2	14.83±1.02 ^a	11.89±1.01 ^a	5.20±0.64 ^a	5.21±0.52 ^a	8.81±0.67 ^a
Means		11.42±1.79 ^{dA}	8.76±1.59 ^{dB}	3.23±1.03 ^{cC}	3.51±0.88 ^{cC}	6.36±1.26 ^{cB}
1	0	10.37±0.80 ^b	6.77±0.92 ^b	2.28±0.28 ^b	2.54±0.31 ^b	1
	1	11.28±0.83 ^b	8.52±1.03 ^b	2.58±0.15 ^b	3.20±0.35 ^b	
	2	17.50±0.65 ^a	13.08±1.02 ^a	5.26±0.88 ^a	5.46±0.42 ^a	
Means		13.05±2.24 ^{dA}	9.46±1.88 ^{cdB}	3.37±0.95 ^{cdD}	3.73±0.88 ^{cdD}	6.72±1.31 ^{cc}
2	0	12.25±0.15 ^c	8.29±1.05 ^b	3.11±0.22 ^c	3.23±0.18 ^c	2
	1	16.73±0.35 ^b	10.23±0.88 ^b	5.19±0.75 ^b	5.49±0.82 ^b	
	2	20.75±0.42 ^a	14.42±1.04 ^a	8.26±0.30 ^a	10.18±0.94 ^a	
Means		16.58±2.46 ^{cA}	10.98±1.81 ^{cB}	5.52±1.50 ^{bdD}	6.30±2.05 ^{bdD}	8.76±1.76 ^{cc}
4	0	17.28±1.03 ^c	10.25±1.11 ^c	5.50±0.43 ^c	4.61±0.52 ^c	4
	1	20.37±1.12 ^b	13.86±0.75 ^b	7.82±0.28 ^b	8.15±0.15 ^b	
	2	26.30±1.30 ^a	19.72±1.02 ^a	13.27±0.75 ^a	14.19±0.18 ^a	
Means		21.32±2.65 ^{bA}	14.61±2.76 ^{bb}	8.53±2.56 ^{adD}	8.98±2.80 ^{bdD}	11.39±2.32 ^{bc}
6	0	21.82±1.12 ^c	14.26±1.02 ^c	7.26±0.75 ^c	7.50±0.35 ^c	6
	1	25.34±1.16 ^b	17.80±1.30 ^b	9.75±0.95 ^b	10.64±1.02 ^b	
	2	29.63±1.33 ^a	23.51±1.12 ^a	15.12±0.75 ^a	15.46±0.94 ^a	
Means		25.60±2.26 ^{aA}	18.52±2.70 ^{abB}	10.71±2.32 ^{adD}	11.20±2.32 ^{adD}	15.57±2.31 ^{ac}
Overall means		17.59±2.62 ^A	12.47±1.82 ^B	6.27±1.47 ^D	6.74±1.49 ^D	9.76±1.71 ^C

A-D: Means with different superscripts in the same row, differ significantly (P < 0.05).

a-d: Means with different superscripts in the same column, differ significantly (P < 0.05).

Table (5): Activities of aspartate-aminotransferase (U/106 spermatozoa) of buffalo spermatozoa either non-washed or washed supplemented with various concentrations of caffeine, during storage at 5°C and incubation at 37°C.

Storage time (day)	Incubation time (hour)	Non-washed semen	Washed semen Caffeine concentration (mM/100ml)			
			0	2	4	8
0	0	53.96±0.86 ^c	47.92±2.21 ^b	44.19±1.70 ^b	45.11±1.91 ^b	46.10±2.66 ^b
	1	56.93±0.96 ^b	50.30±2.05 ^b	46.07±1.84 ^{ab}	46.68±1.80 ^b	47.92±2.51 ^b
	2	61.51±0.43 ^a	54.35±1.47 ^a	48.78±1.21 ^a	50.30±1.98 ^a	51.03±1.91 ^a
Means		57.47±1.16 ^{cA}	50.86±1.37 ^{eB}	46.35±1.03 ^{dC}	47.36±1.21 ^{dC}	48.35±1.37 ^{dCB}
1	0	57.17±0.59 ^c	50.58±1.65 ^c	46.07±1.94 ^b	46.66±1.94 ^c	47.18±2.24 ^c
	1	59.99±0.39 ^b	53.62±1.26 ^b	48.10±1.53 ^b	49.61±1.86 ^b	50.56±1.82 ^b
	2	65.89±0.64 ^a	58.95±1.49 ^a	51.64±1.41 ^a	53.12±1.52 ^a	54.58±1.89 ^a
Means		61.02±1.31 ^{dA}	54.38±1.42 ^{dB}	48.60±1.15 ^{dC}	49.80±1.28 ^{dC}	50.77±1.45 ^{dC}
2	0	60.14±1.15 ^c	53.85±1.16 ^c	49.15±1.52 ^c	49.90±1.35 ^c	50.41±1.60 ^c
	1	64.32±1.65 ^b	57.20±1.66 ^b	52.17±1.66 ^b	53.07±1.56 ^b	53.65±1.71 ^b
	2	70.61±1.62 ^a	61.87±1.74 ^a	55.89±2.21 ^a	56.89±2.26 ^a	58.04±2.49 ^a
Means		65.02±1.69 ^{cA}	57.64±1.39 ^{cB}	52.40±1.32 ^{cC}	53.29±1.33 ^{cC}	54.03±0.73 ^{cC}
4	0	64.68±1.92 ^c	57.42±2.07 ^c	53.46±2.43 ^c	54.10±2.40 ^c	55.03±2.60 ^c
	1	69.23±2.04 ^b	61.07±2.29 ^b	56.51±2.48 ^b	57.52±2.42 ^b	59.26±2.35 ^b
	2	77.33±2.67 ^a	65.56±2.67 ^a	61.54±2.47 ^a	62.35±1.99 ^a	63.13±2.37 ^a
Means		70.41±2.15 ^{bA}	61.35±1.65 ^{bB}	57.17±1.69 ^{bC}	57.99±1.63 ^{bC}	59.14±1.67 ^{bCB}
6	0	71.74±1.77 ^c	62.09±1.54 ^c	56.80±1.78 ^c	58.20±1.927 ^c	58.45±1.89 ^c
	1	80.20±2.06 ^b	66.06±1.45 ^b	59.82±1.79 ^b	60.95±1.17 ^b	62.13±2.33 ^b
	2	90.97±1.34 ^a	72.55±1.60 ^a	64.61±1.98 ^a	66.11±2.10 ^a	67.36±2.38 ^a
Means		80.97±2.91 ^{aA}	66.90±2.93 ^{aB}	60.41±1.46 ^{aC}	61.75±1.54 ^{aC}	62.65±1.70 ^{aC}
Overall means		66.98±1.49 ^A	58.23±1.05 ^B	52.99±0.98 ^C	54.04±0.99 ^C	54.99±1.05 ^C

A-C: Means with different superscripts in the same row, differ significantly (P < 0.05).

a-e: Means with different superscripts in the same column, differ significantly (P < 0.05).

Table (6): Activities of alanine-aminotransferase (U/106 spermatozoa) of buffalo spermatozoa either non-washed or washed supplemented with various concentrations of caffeine, during storage at 5°C and incubation at 37°C.

Storage time (day)	Incubation time (hour)	Non-washed semen	Washed semen Caffeine concentration (mM/100ml)			
			0	2	4	8
0	0	28.17±0.59 ^c	24.34±1.58 ^c	20.63±1.28 ^c	21.09±1.34 ^c	21.66±1.30 ^c
	1	33.96±0.39 ^b	27.23±1.55 ^b	24.13±1.54 ^b	24.66±1.53 ^b	25.49±1.39 ^b
	2	37.49±0.93 ^a	31.86±1.14 ^a	28.58±0.71 ^a	29.16±0.52 ^a	30.28±0.75 ^a
Means		33.21±1.39 ^{eA}	27.81±1.30 ^{eB}	24.45±1.30 ^{eC}	24.97±1.34 ^{eC}	25.81±1.38 ^{eBC}
1	0	33.62±0.84 ^c	27.65±1.78 ^c	24.45±0.87 ^c	24.82±0.95 ^c	25.79±1.20 ^c
	1	38.48±0.98 ^b	31.03±1.35 ^b	27.47±1.89 ^b	28.54±1.87 ^b	29.85±1.75 ^b
	2	46.63±1.76 ^a	36.54±1.32 ^a	32.32±1.59 ^a	33.12±1.43 ^a	34.40±1.86 ^a
Means		39.58±1.94 ^{dA}	31.74±1.68 ^{dB}	28.08±1.36 ^{dC}	28.83±1.40 ^{dC}	30.01±1.48 ^{dB}
2	0	40.49±0.67 ^c	31.52±1.88 ^c	27.99±1.05 ^c	28.84±1.71 ^c	29.67±1.78 ^c
	1	45.66±0.84 ^b	36.35±1.94 ^b	30.79±1.21 ^b	32.43±1.88 ^b	33.86±1.84 ^b
	2	52.21±0.55 ^a	42.37±2.18 ^a	37.45±0.91 ^a	38.58±0.85 ^a	40.16±1.01 ^a
Means		46.12±1.73 ^{cA}	36.75±1.85 ^{cB}	32.08±1.66 ^{cC}	33.28±1.61 ^{cC}	34.56±1.71 ^{cBC}
4	0	46.19±0.96 ^c	36.22±2.56 ^c	31.48±1.87 ^c	31.86±1.67 ^c	34.02±0.89 ^c
	1	54.49±0.90 ^b	41.63±2.84 ^b	37.14±1.95 ^b	37.81±2.23 ^b	36.27±0.42 ^b
	2	61.34±0.97 ^a	49.48±2.61 ^a	43.34±1.51 ^a	44.21±1.40 ^a	45.59±1.41 ^a
Means		54.01±2.24 ^{bA}	42.44±2.32 ^{bB}	37.32±1.93 ^{bC}	37.96±1.99 ^{bC}	38.63±1.93 ^{bC}
6	0	55.58±0.83 ^c	44.48±2.36 ^c	39.33±2.02 ^c	40.14±1.96 ^c	41.49±2.42 ^c
	1	64.57±0.61 ^b	50.99±2.32 ^b	45.63±1.41 ^b	46.85±2.08 ^b	48.92±2.87 ^b
	2	72.86±1.19 ^a	57.52±1.48 ^a	51.96±1.07 ^a	52.93±2.35 ^a	60.38±3.33 ^a
Means		64.34±2.53 ^{aA}	51.00±2.15 ^{aB}	45.64±2.11 ^{aC}	46.64±2.13 ^{aC}	50.26±3.52 ^{aB}
Overall means		47.45±1.85 ^A	37.95±1.47 ^B	33.51±1.33 ^C	34.34±1.35 ^C	35.85±1.61 ^{CB}

A-C: Means with different superscripts in the same row, differ significantly (P< 0.05).

a-e: Means with different superscripts in the same column, differ significantly (P< 0.05).

Table (7): Activities of alkaline phosphates (U/106 spermatozoa) of buffalo spermatozoa either non-washed or washed supplemented with various concentrations of caffeine, during storage at 5°C and incubation at 37°C.

Storage time (day)	Incubation time (hour)	Non-washed semen	Washed semen Caffeine concentration (mM/100ml)			
			0	2	4	8
0	0	22.88±1.25 ^c	19.65±0.78 ^c	17.15±1.13 ^b	18.33±0.94 ^c	19.04±0.71 ^c
	1	26.48±1.40 ^b	22.37±1.32 ^b	19.59±1.39 ^b	20.49±0.51 ^b	21.65±0.52 ^b
	2	30.71±1.95 ^a	26.05±1.52 ^a	23.80±2.06 ^a	24.46±1.95 ^a	25.46±1.69 ^a
Means		26.69±1.36 ^{eA}	22.69±1.11 ^{eB}	20.18±1.24 ^{eB}	21.10±1.17 ^{eB}	22.05±1.18 ^{eB}
1	0	25.99±1.79 ^c	22.50±0.89 ^c	20.15±1.37 ^b	21.20±1.02 ^c	21.81±1.16 ^c
	1	31.52±1.54 ^b	25.86±1.14 ^b	22.59±1.33 ^b	23.72±0.48 ^b	24.51±0.68 ^b
	2	38.22±1.89 ^a	30.76±1.22 ^a	26.38±1.04 ^a	27.46±0.85 ^a	28.19±0.95 ^a
Means		31.91±1.96 ^{dA}	26.37±1.31 ^{dB}	23.04±1.10 ^{dC}	24.13±1.07 ^{dBC}	24.84±1.13 ^{dBC}
2	0	33.14±1.51 ^c	26.42±1.39 ^c	22.92±1.15 ^c	24.41±1.44 ^c	25.21±1.59 ^c
	1	39.83±1.50 ^b	30.84±0.79 ^b	25.97±1.27 ^b	27.68±1.85 ^b	28.78±2.36 ^b
	2	49.90±2.03 ^a	38.77±1.03 ^a	31.48±2.10 ^a	32.46±1.87 ^a	34.34±2.20 ^a
Means		40.96±2.57 ^{cA}	32.01±1.88 ^{cB}	26.79±1.47 ^{cD}	28.18±1.44 ^{cCD}	29.44±1.67 ^{cC}
4	0	40.55±1.61 ^c	31.27±0.84 ^c	25.95±1.76 ^c	27.11±1.72 ^c	28.42±2.10 ^c
	1	47.98±1.89 ^b	38.97±0.75 ^b	32.21±1.52 ^b	33.18±1.53 ^b	34.93±1.64 ^b
	2	60.70±1.68 ^a	45.29±1.27 ^a	38.61±0.83 ^a	40.02±1.04 ^a	41.56±0.75 ^a
Means		49.74±3.05 ^{bA}	38.51±2.08 ^{bB}	32.26±1.95 ^{bC}	33.44±1.99 ^{bC}	34.97±2.05 ^{bC}
6	0	51.77±0.87 ^c	40.56±1.31 ^c	33.91±2.40 ^c	33.49±1.85 ^c	35.55±1.45 ^c
	1	64.77±0.91 ^b	49.02±0.81 ^b	37.82±1.84 ^b	39.98±1.31 ^b	41.78±1.50 ^b
	2	75.30±2.31 ^a	55.64±1.23 ^a	47.89±1.72 ^a	49.20±1.55 ^a	49.13±1.52 ^a
Means		63.95±3.48 ^{aA}	48.41±2.25 ^{aB}	39.87±2.30 ^{aD}	40.89±2.41 ^{aCD}	42.15±2.09 ^{aC}
Overall means		42.65±2.28 ^A	33.60±1.57 ^B	28.43±1.27 ^C	29.55±1.28 ^C	30.69±1.30 ^C

A-C: Means with different superscripts in the same row, differ significantly (P < 0.05).

a-e: Means with different superscripts in the same column, differ significantly (P < 0.05).

