Table 2. Effect of nitrogen and potassium fertilization treatments on yield (kg)/tree of mango cv. Keitt grown under open field and screenhouse conditions in 2011, 2012 and 2013 seasons.

Treatment	First Season (2011)			Second Season (2012)			Third Season (2013)		
	Open field	Screenhouse	Mean	Open field	Screenhouse	Mean	Open field	Screenhouse	Mean
N1 at 80+K1 at 80	1.87 j	2.62 ij	**2.25 G**	3.99 lm	2.98 m	**3.49 F**	2.36 j	2.47 j	**2.42 H**
N1 at 80+K2 at 100	2.55 ij	2.96 hij	**2.75 G**	4.91 j-m	4.37 klm	**4.64 F**	3.41 ij	4.85 hi	**4.13 G**
N2 at 100+K1 at 80	3.06 hij	6.10 f	**4.58 F**	5.88 i-l	7.06 hi	**6.47 E**	4.09 i	6.16 gh	**5.13 FG**
N2 at 100+K2 at 100	3.65 hij	12.42 e	**8.04 E**	6.30 ijk	9.68 fg	**7.99 D**	4.56 i	6.33 fgh	**5.45 F**
N3 at 120+K1 at 80	3.99 ghi	15.03 d	**9.51 D**	6.74 hij	10.66 def	**8.70 D**	6.70 fg	7.56 fg	**7.13 E**
N3 at 120+K2 at 100	4.78 fgh	15.70 cd	**10.24 CD**	8.32 gh	11.78 cde	**10.05 C**	7.91 ef	10.01 cd	**8.96 D**
N4 at 150+K1 at 80	6.10 f	20.31 b	**13.20 B**	10.46 ef	16.27 b	**13.37 B**	11.08 c	14.06 b	**12.57 B**
N4 at 150+K2 at 100	6.38 f	24.99 a	**15.69 A**	12.51 cd	20.14 a	**16.33 A**	15.22 b	18.48 a	**16.85 A**
Nc at 133+Kc at 90	5.80 fg	17.17 c	**11.48 C**	9.22 fg	12.93 c	**11.07 C**	9.17 de	10.99 c	**10.08 C**
Mean	**4.24 B`**	**13.03 A`**		**7.593 B`**	**10.65 A`**		**7.17 B`**	**8.99 A`**	

Mean in each column, row or interaction had the same letter (s) are not significant at 5% level.
N= nitrogen- K= potassium – Nc= control of nitrogen – Kc= control of potassium

Table 3. Effect of nitrogen and potassium fertilization treatments on number of fruit/ panicale of mango cv. Keitt grown under open field and screenhouse conditions in 2011, 2012 and 2013 seasons.

Treatment	First Season (2011)			Second Season (2012)			Third Season		
	Open field	Screenhouse	Mean	Open field	Screenhouse	Mean	Open field	Screenhouse	Mean
N1 at 80+K1 at 80	3.57 h	4.60 gh	**4.08 F**	1.92 e	2.54 cde	**2.23 D**	1.00 c	5.63 b	**3.31 A**
N1 at 80+K2 at 100	3.63 h	7.67 ef	**5.65 EF**	2.00 de	2.63 cde	**2.31 CD**	1.00 c	6.13 b	**3.57 A**
N2 at 100+K1 at 80	3.57 h	9.00 ef	**6.28 E**	2.33 cde	3.00 bcde	**2.67 CD**	1.04 c	7.75 ab	**4.40 A**
N2 at 100+K2 at 100	5.47 fgh	10.53 d	**8.00 D**	2.29 cde	3.67 abcd	**2.98 CD**	1.04 c	7.88 ab	**4.46 A**
N3 at 120+K1 at 80	6.13 fgh	14.60 c	**10.37 C**	2.33 cde	3.67 abcd	**3.00 CD**	1.04 c	8.25 ab	**4.65 A**
N3 at 120+K2 at 100	6.20 fgh	15.87 c	**11.03 C**	2.33 cde	3.88 abc	**3.11 BCD**	1.04 c	8.50 ab	**4.77 A**
N4 at 150+K1 at 80	6.93 efg	19.40 b	**13.17 B**	3.67 abcd	4.67 ab	**4.17 AB**	1.08 c	9.17 ab	**5.13 A**
N4 at 150+K2 at 100	7.43 ef	24.17 A	**15.80 A**	3.67 abcd	5.00 a	**4.33 A**	1.24 c	11.02 a	**6.13 A**
Nc at 133+Kc at 90	6.47 efg	16.13 C	**11.30 C**	2.84 cde	4.00 abc	**3.42 ABC**	1.08 c	9.13 ab	**5.10 A**
Mean	**5.49 B**	**13.55 A**		**2.60 B**	**3.67 A**		**1.06 B**	**8.16 A**	

Mean in each column, row or interaction had the same letter (s) are not significant at 5% level.
N= nitrogen- K= potassium – Nc= control of nitrogen – Kc= control of potassium

Table 4. Effect of nitrogen and potassium fertilization treatments on fruit weight (g) of mango cv. Keitt grown under open field and screenhouse conditions in 2011, 2012 and 2013 seasons.

Treatments	First Season (2011)			Second Season (2012)			Third Season (2013)		
	Open field	Screenhouse	Mean	Open field	Screenhouse	Mean	Open field	Screenhouse	Mean
N1 at 80+K1 at 80	628.7 g	792 f	**710.3 D**	550.7 g	600.7 fg	**575.7 F**	550.0 g	571.3 g	**560.7 E**
N1 at 80+K2 at 100	768 f	809 f	**788.5 C**	650.0 efg	698.7 c-g	**674.3 E**	684.3 f	697.3 f	**690.8 D**
N2 at 100+K1 at 80	773.1 f	918 e	**845.5 C**	680.7 d-g	761.3 cde	**721.0 DE**	686.0 f	714.7 ef	**700.3 D**
N2 at 100+K2 at 100	783.4 f	1066 bcd	**924.9 B**	727.3 c-f	790.0 b-e	**758.7 CDE**	721.3 def	733.3 def	**727.3 CD**
N3 at 120+K1 at 80	801.1f	1108 abc	**954.5 B**	750.7 c-f	827.3 bcd	**789.0 BCD**	724.7 def	734.3 def	**729.5 CD**
N3 at 120+K2 at 100	801.4 f	1144 ab	**972.7 B**	806.7 b-e	851.0 bc	**828.8 BC**	744.0 def	794.7 b-e	**769.3 BC**
N4 at 150+K1 at 80	963.3 de	1203 a	**1083 A**	931.3 b	1093.0 a	**1012.0 A**	791.7 b-e	832.7 b	**812.2 B**
N4 at 150+K2 at 100	1011 cde	1212 a	**1111 A**	937.3 b	1223 a	**1080.0 A**	802.0 bcd	980.0 a	**891.0 A**
Nc at 133+Kc at 90	928 e	1176 ab	**1052 A**	820.3 bcd	930.7 b	**875.5 B**	748.7 c-f	828.0 bc	**788.3 B**
Mean	**828.6 B`**	**1048 A`**		**761.7 B`**	**864.0 A`**		**717.0 B`**	**765.1 A`**	

Mean in each column, row or interaction had the same letter (s) are not significant at 5% level.
N= nitrogen- K= potassium – Nc= control of nitrogen – Kc= control of potassium

Table 5. Effect of nitrogen and potassium fertilization treatments on peel color (Hue angle) of mango cv. Keitt grown under open field and screenhouse conditions in 2011, 2012 and 2013 seasons.

Treatments	First Season (2011)			Second Season (2012)			Third Season (2013)		
	Open field	Screenhouse	Mean	Open field	Screenhouse	Mean	Open field	Screenhouse	Mean
N1 at 80+K1 at 80	119.9 a-d	119.7 a-d	119.8 A	110.7 de	113.4 b-e	112.1 A-D	105.8 d	116.8 ab	111.3 AB
N1 at 80+K2 at 100	109.3 ef	122.2 ab	115.8 AB	112.1 cde	111.5 cde	111.8 BCD	115.8 a-d	118.6 ab	117.2 AB
N2 at 100+K1 at 80	107.1 f	118.4 a-e	112.7 B	110.5 de	120.4 ab	115.5 AB	107.8 cd	115.5 a-d	111.7 AB
N2 at 100+K2 at 100	114.0 c-f	125.7 a	119.8 A	102.5 f	121.0 a	111.8 BCD	113.2 a-d	122.3 a	117.8 A
N3 at 120+K1 at 80	119.2 b-e	114.2 b-f	116.7 AB	118.2 a-d	102.1 f	110.1 CD	110.4 bcd	110.4 bcd	110.4 B
N3 at 120+K2 at 100	117.6 b-e	115.2 b-f	116.4 AB	118.4 abc	115.7 a-d	117.0 A	109.8 bcd	118.6 ab	114.2 AB
N4 at 150+K1 at 80	110.3 def	96.26 g	103.3 C	116.3 a-d	115.1 a-d	115.7 AB	110.4 bcd	116.1 a-d	113.2 AB
N4 at 150+K2 at 100	86.26 h	121.5 abc	103.9 C	112.0 cde	117.0 a-d	114.5 ABC	118.2 ab	112.9 a-d	115.5 AB
Nc at 133+Kc at 90	119.6 a-d	112.0 c-f	115.8 AB	110.8 cde	106.8 ef	108.8 D	113.0 a-d	117.8 abc	115.4 AB
Mean	111.5 B	116.1 A		112.4 A	113.7 A		111.6 B	116.5 A	

Mean in each column, row or interaction had the same letter (s) are not significant at 5% level.
N= nitrogen- K= potassium – Nc= control of nitrogen – Kc= control of potassium

Table 6. Effect of nitrogen and potassium fertilization treatments on T.S.S of mango cv. Keitt grown under open field and screenhouse conditions in 2011, 2012 and 2013 seasons.

Treatments	First Season (2011)			Second Season (2012)			Third Season (2013)		
	Open field	Screenhouse	Mean	Open field	Screenhouse	Mean	Open field	Screenhouse	Mean
N1 at 80+K1 at 80	19.93 k	20.75 f	**20.34 F**	16.76 a-d	15.19 cd	**15.98 BC**	17.78 k	18.09 ij	**17.93 G**
N1 at 80+K2 at 100	20.09 j	20.94 e	**20.52 E**	14.69 d	14.67 d	**14.68 C**	18.05 j	18.17 hi	**18.11 F**
N2 at 100+K1 at 80	20.13 j	21.13 d	**20.63 D**	16.80 a-d	16.40 a-d	**16.60 AB**	18.13 ij	18.23 h	**18.18 E**
N2 at 100+K2 at 100	20.39 h	21.34 b	**20.86 B**	16.42 a-d	15.81 b-d	**16.11 B**	18.27 h	18.52 ef	**18.39 D**
N3 at 120+K1 at 80	20.38 h	21.42 b	**20.90 B**	18.28 a	17.61 ab	**17.94 A**	18.60 de	18.92 b	**18.76 B**
N3 at 120+K2 at 100	20.51 g	21.59 a	**21.05 A**	17.58 ab	17.31 abc	**17.44 AB**	18.73 c	19.14 a	**18.93 A**
N4 at 150+K1 at 80	20.23 i	21.25 c	**20.74 C**	17.92 ab	16.40 a-d	**17.16 AB**	18.38 g	18.46 fg	**18.42 D**
N4 at 150+K2 at 100	20.42 h	21.43 b	**20.92 B**	17.27 abc	16.02 a-d	**16.65 AB**	18.53 ef	18.63 d	**18.58 C**
Nc at 133+Kc at 90	20.36 h	21.37 b	**20.87 B**	17.58 ab	16.61 a-d	**17.09 AB**	18.56 def	18.85 b	**18.70 B**
Mean	**20.27 B**	**21.25 A**		**17.03 A**	**16.22 B**		**18.34 B**	**18.56 A**	

Mean in each column, row or interaction had the same letter (s) are not significant at 5% level.
N= nitrogen- K= potassium – Nc= control of nitrogen – Kc= control of potassium

Table 7. Effect of nitrogen and potassium fertilization treatments on total acidity of Mango cv. Keitt grown under open field and screenhouse conditions in 2011, 2012 and 2013 seasons.

Treatments	First Season			Second Season			Third Season		
	Open field	Screenhouse	Mean	Open field	Screenhouse	Mean	Open field	Screenhouse	Mean
N1 at 80+K1 at 80	0.75 i	0.84 fgh	**0.79 E**	0.87c	0.85 c	**0.86 C**	0.85 h	0.92 efg	**0.89 E**
N1 at 80+K2 at 100	0.80 hi	0.86 d-g	**0.83 DE**	0.91 bc	0.87 c	**0.89 BC**	0.90 gh	0.96 c-g	**0.93 CD**
N2 at 100+K1 at 80	0.82 gh	0.87 c-g	**0.84 CD**	0.90 bc	0.89 c	**0.89 BC**	0.90 fgh	0.95 c-g	**0.93 D**
N2 at 100+K2 at 100	0.86 d-g	0.89 b-f	**0.88 BC**	0.93 abc	0.89 c	**0.91 BC**	0.94 c-g	0.99 bcd	**0.97 BCD**
N3 at 120+K1 at 80	0.92 a-d	0.93 abc	**0.92 A**	0.99 ab	1.00 a	**0.99 A**	0.96 c-f	1.00 bcd	**0.98 B**
N3 at 120+K2 at 100	0.93 ab	0.96 a	**0.95 A**	0.93 abc	0.93 abc	**0.93 B**	1.00 bc	1.07 a	**1.04 A**
N4 at 150+K1 at 80	0.85 e-h	0.90 a	**0.87 BC**	0.91 bc	0.92 abc	**0.92 BC**	0.93 d-g	0.97 b-e	**0.95 BCD**
N4 at 150+K2 at 100	0.90 b-e	0.94 ab	**0.92 A**	0.92 abc	0.89 c	**0.91 BC**	0.96 c-g	1.02 ab	**0.99 B**
Nc at 133+Kc at 90	0.90 b-e	0.92 a-d	**0.91 AB**	0.91 bc	0.89 c	**0.90 BC**	0.96 c-g	0.98 b-e	**0.97 BC**
Mean	**0.86 B**	**0.90 A**		**0.92 A**	**0.90 A**		0.93 B	0.98 A	

Mean in each column, row or interaction had the same letter (s) are not significant at 5% level.
N= nitrogen- K= potassium – Nc= control of nitrogen – Kc= control of potassium

Table 8. Effect of nitrogen and potassium fertilization treatments on Ascorbic acid content of Mango cv. Keitt grown under open field and screenhouse conditions in 2011, 2012 and 2013 seasons.

Treatments	First season (2011)			Second Season (2012)			Third Season (2013)		
	Open field	Screenhouse	Mean	Open field	Screenhouse	Mean	Open field	Screenhouse	Mean
N1 at 80+K1 at 80	140.0 i	147.8 h	**143.9 F**	144.2 k	154.7 j	**149.4 G**	189.3 h	209.1 f	**199.2 F**
N1 at 80+K2 at 100	151.2 efgh	154.8 defg	**153.0 E**	161.6 i	167.1 efgh	**164.3 E**	201.5 g	218.1 e	**209.8 E**
N2 at 100+K1 at 80	149.3 gh	156.1 def	**152.7 E**	155.6 j	165.6 fghi	**160.6 F**	208.6 f	220.9 de	**214.7 D**
N2 at 100+K2 at 100	159.8 cd	162.5 bc	**161.2 C**	167.6 efg	171.5 de	**169.5 C**	224.6 d	236.6 b	**230.6 B**
N3 at 120+K1 at 80	159.5 cd	165.7 b	**162.6 C**	161.5 i	176.0 c	**168.7 CD**	218.3 e	230.1 c	**224.2 C**
N3 at 120+K2 at 100	166.5 b	173.7 a	**170.1 B**	173.5 cd	182.3 b	**177.9 B**	231.3 bc	245.6 a	**238.5 A**
N4 at 150+K1 at 80	150.5 fgh	150.5 fgh	**150.5 E**	153.3 j	163.8 ghi	**158.5 F**	202.4 g	216.7 e	**209.5 E**
N4 at 150+K2 at 100	157.6 cd	156.9 cde	**157.2 D**	163.0 hi	168.9 ef	**165.9 DE**	208.4 f	224.4 d	**216.4 D**
Nc at 133+Kc at 90	174.4 a	177.4 a	**175.9 A**	177.0 c	186.5 a	**181.8 A**	236.0 b	246.1 a	**241.1 A**
Mean	**156.5 B**	**160.6 A**		**161.9 B**	**170.7 A**		**213.4 B**	**227.5 A**	

Mean in each column, row or interaction had the same letter (s) are not significant at 5% level.
N= nitrogen- K= potassium – Nc= control of nitrogen – Kc= control of potassium