

Supplementary data

Table S1.

Firmness (N) of untreated (control) and 1-MCP treated 'Conference' pears analysis after storage in normal (NA) and controlled (CA) atmospheres at 2011 year

Rootstock	Storage atmosphere	1-MCP dose	Days of storage						
			0	30	60	90	120	150	180
Q S1	NA	Control	63.7 (1.57) ^a	59.8 (2.16)	53.9 (4.71)	50.0 (6.67)	50.0 (4.12)	42.2 (3.53)	40.2 (3.04)
		1-MCP	63.7 (1.57)	64.7 (5.79)	56.9 (3.73)	54.9 (3.73)	47.1 (5.00)	40.2 (5.20)	41.2 (4.02)
	KA	Control	63.7 (1.57)	65.7 (3.73)	64.7 (3.33)	57.9 (3.73)	55.9 (3.73)	49.0 (5.20)	45.1 (5.39)
		1-MCP	63.7 (1.57)	62.8 (4.51)	59.8 (4.51)	60.8 (5.20)	59.8 (6.47)	55.9 (6.47)	53.0 (6.47)
CP	NA	Control	64.7 (4.41)	63.7 (3.43)	57.9 (3.92)	53.0 (4.90)	49.0 (5.69)	42.2 (5.10)	42.2 (3.04)
		1-MCP	64.7 (4.41)	62.8 (5.88)	59.8 (5.88)	53.9 (5.98)	48.1 (4.81)	43.1 (5.30)	43.1 (5.30)
	CA	Control	64.7 (4.41)	62.8 (6.47)	61.8 (6.28)	56.9 (6.18)	53.9 (6.18)	50.0 (6.18)	46.1 (4.31)
		1-MCP	64.7 (4.41)	62.8 (6.47)	58.8 (5.98)	61.8 (5.49)	58.8 (6.18)	54.9 (5.30)	53.0 (3.04)
PD	NA	Control	63.7 (1.47)	62.8 (5.20)	56.9 (4.41)	53.0 (3.92)	53.9 (1.37)	45.1 (6.37)	39.2 (4.12)
		1-MCP	63.7 (1.47)	62.8 (6.18)	57.9 (7.35)	52.0 (5.20)	47.1 (4.71)	46.1 (5.20)	44.1 (5.39)
	CA	Control	63.7 (1.47)	65.7 (3.92)	60.8 (3.33)	58.8 (3.33)	54.9 (5.00)	47.1 (5.00)	45.1 (5.00)
		1-MCP	63.7 (1.47)	65.7 (5.79)	59.8 (5.39)	59.8 (5.39)	58.8 (5.10)	54.9 (4.22)	53.9 (3.82)

Main effects^b

Rootstock (A)	***	ns	ns	ns	ns	ns	ns	ns
Storage atmosphere (B)	ns	ns	***	***	***	***	***	***
1-MCP dose (C)	ns	ns	ns	**	***	***	***	***

Interaction

A x B	ns	ns	**	ns	ns	ns	ns	ns
A x C	ns	ns	ns	ns	ns	ns	ns	ns
B x C	ns	ns	**	ns	***	**	***	***
A x B x C	ns	***	ns	ns	ns	ns	ns	ns

^a Numbers in parentheses are the standard deviation of the mean (n = 10).

^b P-value of F ratio: ns, not significantly different; *P < 0.05; **P < 0.01; ***P < 0.001.

Table S2.

Firmness (N) of untreated (control) and 1-MCP treated 'Conference' pears analysis after storage in normal (NA) and controlled (CA) atmospheres at 2012 year

Rootstock	Storage atmosphere	1-MCP dose	Days of storage						
			0	30	60	90	120	150	180
Q S1	NA	Control	59.8 (4.81) ^a	56.9 (2.55)	53.0 (2.55)	50.0 (1.86)	46.1 (2.55)	43.1 (3.33)	40.2 (3.24)
		1-MCP	59.8 (4.81)	58.8 (3.53)	58.8 (2.65)	55.9 (3.92)	53.0 (2.75)	49.0 (3.24)	44.1 (3.33)
	KA	Control	63.7 (1.57)	59.8 (2.65)	60.8 (5.20)	57.9 (3.92)	55.9 (4.41)	52.0 (2.75)	49.0 (4.71)
		1-MCP	59.8 (4.81)	60.8 (5.10)	58.8 (3.33)	58.8 (6.08)	57.9 (5.49)	56.9 (2.94)	55.9 (4.71)
CP	NA	Control	59.8 (7.26)	56.9 (3.73)	54.9 (1.77)	52.0 (1.47)	47.1 (3.14)	44.1 (2.45)	41.2 (4.41)
		1-MCP	59.8 (7.26)	59.8 (4.81)	57.9 (2.35)	56.9 (4.12)	52.0 (4.51)	48.1 (2.45)	45.1 (3.14)
	CA	Control	64.7 (4.41)	59.8 (3.92)	57.9 (4.02)	57.9 (2.55)	54.9 (4.31)	53.9 (3.92)	46.1 (3.82)
		1-MCP	59.8 (7.26)	60.8 (5.20)	59.8 (3.14)	57.9 (3.82)	57.9 (5.59)	55.9 (3.63)	54.9 (4.81)
PD	NA	Control	61.8 (5.79)	54.9 (2.16)	53.0 (1.96)	49.0 (2.45)	47.1 (2.94)	43.1 (2.75)	38.2 (4.02)
		1-MCP	61.8 (5.79)	58.8 (3.92)	57.9 (2.75)	55.9 (3.82)	51.0 (4.12)	46.1 (4.12)	43.1 (3.82)
	CA	Control	63.7 (1.47)	60.8 (3.63)	57.9 (2.75)	55.9 (2.26)	56.9 (3.63)	53.0 (3.24)	52.0 (3.92)
		1-MCP	61.8 (5.79)	59.8 (4.81)	59.8 (3.73)	57.9 (4.90)	59.8 (6.37)	57.9 (3.63)	54.9 (3.33)
Main effects ^b									
Rootstock (A)			ns	ns	ns	ns	ns	ns	ns
Storage atmosphere (B)			ns	***	***	***	***	***	***
1-MCP dose (C)			ns	ns	***	***	***	***	***
Interaction									
A x B			ns	ns	ns	ns	ns	ns	***
A x C			ns	ns	ns	ns	ns	ns	ns
B x C			ns	ns	***	***	ns	ns	ns
A x B x C			ns	ns	ns	ns	ns	ns	ns

^a Numbers in parentheses are the standard deviation of the mean (n = 10).

^b P-value of F ratio: ns, not significantly different; *P < 0.05; **P < 0.01; ***P < 0.001.

Table S3.

Firmness (N) of untreated (control) and 1-MCP treated 'Conference' pears analysis after storage in normal (NA) and controlled (CA) atmospheres at 2013 year

Rootstock	Storage atmosphere	1-MCP dose	Days of storage						
			0	30	60	90	120	150	180
Q S1	NA	Control	66.7 (3.82) ^a	64.7 (4.81)	63.7 (4.81)	56.9 (3.43)	51.0 (3.53)	46.1 (3.04)	41.2 (3.73)
		1-MCP	66.7 (3.82)	64.7 (3.82)	64.7 (3.82)	60.8 (4.71)	56.9 (6.37)	53.0 (6.86)	49.0 (6.67)
	KA	Control	66.7 (3.82)	65.7 (2.84)	63.7 (2.84)	62.8 (2.84)	57.9 (4.02)	53.0 (3.82)	51.0 (3.53)
		1-MCP	66.7 (3.82)	65.7 (3.53)	64.7 (2.94)	63.7 (2.65)	61.8 (3.33)	59.8 (4.31)	57.9 (4.12)
CP	NA	Control	66.7 (3.43)	65.7 (5.30)	63.7 (6.57)	55.9 (6.77)	50.0 (6.08)	45.1 (4.61)	39.2 (5.00)
		1-MCP	66.7 (3.43)	64.7 (3.53)	63.7 (4.22)	61.8 (3.53)	55.9 (3.53)	51.0 (4.51)	48.1 (4.61)
	CA	Control	66.7 (3.43)	66.7 (3.43)	63.7 (2.94)	62.8 (2.94)	58.8 (2.65)	53.0 (3.73)	49.0 (3.63)
		1-MCP	66.7 (3.43)	66.7 (3.53)	63.7 (5.79)	63.7 (5.79)	61.8 (6.57)	58.8 (5.69)	55.9 (4.61)
PD	NA	Control	64.7 (4.51)	62.8 (4.22)	60.8 (4.81)	55.9 (4.31)	49.0 (5.30)	45.1 (5.00)	39.2 (4.81)
		1-MCP	64.7 (4.51)	63.7 (4.90)	63.7 (4.90)	60.8 (4.90)	54.9 (4.41)	50.0 (4.90)	46.1 (4.90)
	CA	Control	64.7 (4.51)	66.7 (4.22)	62.8 (3.82)	60.8 (2.75)	56.9 (2.16)	52.0 (2.75)	49.0 (5.00)
		1-MCP	64.7 (4.51)	66.7 (5.69)	64.7 (3.82)	62.8 (4.22)	60.8 (5.30)	56.9 (5.69)	53.9 (4.71)
Main effects ^b									
Rootstock (A)			*	ns	ns	ns	ns	ns	*
Storage atmosphere (B)			ns	*	ns	***	***	***	***
1-MCP dose (C)			ns	ns	ns	***	***	***	***
Interaction									
A x B			ns	ns	ns	ns	ns	ns	ns
A x C			ns	ns	ns	ns	ns	ns	ns
B x C			ns	ns	ns	*	ns	ns	ns
A x B x C			ns	ns	ns	ns	ns	ns	ns

^a Numbers in parentheses are the standard deviation of the mean (n = 10).

^b P-value of F ratio: ns, not significantly different; *P < 0.05; **P < 0.01; ***P < 0.001.

Table S4.

Soluble solid content (%) of untreated (control) and 1-MCP treated 'Conference' pears analysis after storage in normal (NA) and controlled (CA) atmospheres at 2011 year

Rootstock	Storage atmosphere	1-MCP dose	Days of storage)						
			0	30	60	90	120	150	180
Q S1	NA	Control	12.1 (0.78) ^a	12.3 (0.54)	12.7 (0.66)	13.3 (1.24)	13.8 (0.76)	14.0 (0.66)	13.9 (0.47)
		1-MCP	12.1 (0.78)	12.5 (0.49)	12.5 (0.49)	13.6 (0.88)	14.2 (0.79)	14.5 (1.15)	14.6 (1.17)
	KA	Control	11.7 (0.85)	12.0 (0.73)	12.4 (0.82)	12.8 (0.57)	13.9 (0.90)	14.5 (0.95)	14.7 (0.85)
		1-MCP	11.7 (0.85)	12.2 (0.74)	12.1 (0.83)	13.1 (0.88)	13.5 (0.55)	13.9 (0.66)	14.3 (0.50)
CP	NA	Control	12.9 (1.93)	13.3 (0.96)	13.2 (0.88)	15.7 (0.87)	15.7 (0.86)	15.1 (0.42)	14.3 (0.97)
		1-MCP	12.9 (1.93)	12.9 (1.47)	13.1 (1.27)	12.9 (1.15)	14.1 (0.93)	14.2 (1.06)	15.1 (1.22)
	CA	Control	12.9 (1.93)	12.7 (1.04)	12.6 (0.90)	13.0 (0.92)	14.0 (0.88)	14.3 (0.93)	15.1 (0.65)
		1-MCP	12.9 (1.93)	13.0 (0.74)	12.9 (0.73)	13.0 (0.47)	13.7 (0.52)	13.8 (0.65)	14.6 (0.77)
PD	NA	Control	12.9 (0.90)	13.1 (0.69)	13.9 (0.64)	14.9 (0.58)	15.0 (0.81)	14.7 (1.05)	14.2 (0.81)
		1-MCP	12.9 (0.90)	12.9 (0.86)	13.0 (0.65)	13.7 (1.09)	14.5 (0.89)	14.7 (1.00)	14.4 (0.98)
	CA	Control	13.7 (1.33)	12.9 (0.89)	13.0 (0.83)	13.5 (0.69)	14.4 (0.92)	14.7 (0.91)	14.6 (0.81)
		1-MCP	13.7 (1.33)	13.1 (0.87)	12.8 (0.73)	13.3 (0.79)	13.5 (0.50)	14.1 (0.76)	14.4 (0.84)
Main effects ^b									
Rootstock (A)			***	***	***	**	**	ns	ns
Storage atmosphere (B)			ns	ns	**	***	***	*	ns
1-MCP dose (C)			ns	ns	ns	***	***	*	ns
Interaction									
A x B			ns	ns	ns	ns	ns	ns	ns
A x C			ns	ns	ns	***	*	ns	ns
B x C			ns	ns	ns	***	ns	ns	**
A x B x C			ns	ns	ns	**	**	ns	ns

^a Numbers in parentheses are the standard deviation of the mean (n = 10).

^b P-value of F ratio: ns, not significantly different; *P < 0.05; **P < 0.01; ***P < 0.001.

Table S5.

Soluble solid content (%) of untreated (control) and 1-MCP treated 'Conference' pears analysis after storage in normal (NA) and controlled (CA) atmospheres at 2012 year

Rootstock	Storage atmosphere	1-MCP dose	Days of storage						
			0	30	60	90	120	150	180
Q S1	NA	Control	12.0 (0.67)	12.2 (0.51)	12.4 (0.47)	13.2 (0.87)	13.8 (0.76)	14.2 (0.79)	14.1 (0.60)
		1-MCP	12.0 (0.67)	12.5 (0.55)	12.7 (0.59)	13.0 (0.67)	13.1 (0.68)	13.6 (0.86)	14.2 (1.04)
	KA	Control	12.0 (0.67)	12.1 (0.54)	12.4 (0.63)	12.6 (0.70)	12.9 (0.72)	13.2 (0.84)	14.0 (0.95)
		1-MCP	12.0 (0.67)	12.1 (0.92)	12.2 (0.80)	12.9 (0.60)	12.8 (0.71)	13.5 (0.86)	13.9 (0.91)
CP	NA	Control	12.4 (0.64)	13.0 (0.77)	13.9 (1.00)	13.1 (0.68)	13.4 (0.80)	14.1 (0.77)	13.7 (0.58)
		1-MCP	12.4 (0.64)	12.5 (0.57)	12.6 (0.54)	13.1 (0.82)	13.5 (0.90)	13.9 (0.92)	14.3 (0.74)
	CA	Control	12.4 (0.64)	12.2 (0.61)	12.7 (0.68)	12.7 (0.75)	13.2 (0.74)	13.7 (0.80)	14.1 (0.75)
		1-MCP	12.4 (0.64)	12.3 (0.65)	12.3 (0.65)	12.4 (0.80)	12.6 (0.82)	13.3 (0.83)	14.0 (0.71)
PD	NA	Control	12.2 (0.84)	12.7 (0.79)	13.1 (0.80)	13.8 (0.46)	14.5 (0.76)	14.3 (0.82)	13.9 (0.70)
		1-MCP	12.2 (0.84)	12.3 (0.72)	12.3 (0.72)	13.0 (0.59)	13.7 (0.75)	14.2 (0.77)	14.3 (0.81)
	CA	Control	12.2 (0.84)	12.4 (0.74)	12.5 (0.65)	13.0 (0.69)	13.6 (0.98)	14.0 (1.26)	14.6 (1.15)
		1-MCP	12.2 (0.84)	12.3 (0.74)	12.5 (0.74)	12.9 (0.65)	13.3 (0.58)	13.7 (0.71)	14.1 (0.93)
Main effects ^b									
Rootstock (A)			ns	ns	*	ns	***	ns	ns
Storage atmosphere (B)			ns	*	**	***	***	**	ns
1-MCP dose (C)			ns	ns	**	ns	**	ns	ns
Interaction									
A x B			ns	ns	ns	ns	ns	ns	ns
A x C			ns	ns	*	ns	ns	ns	ns
B x C			ns	ns	ns	ns	ns	ns	ns
A x B x C			ns	ns	*	ns	ns	ns	ns

^a Numbers in parentheses are the standard deviation of the mean (n = 10).

^b P-value of F ratio: ns, not significantly different; *P < 0.05; **P < 0.01; ***P < 0.001.

Table S6.

Soluble solid content (%) of untreated (control) and 1-MCP treated 'Conference' pears analysis after storage in normal (NA) and controlled (CA) atmospheres at 2013 year

Rootstock	Storage atmosphere	1-MCP dose	Days of storage						
			0	30	60	90	120	150	180
Q S1	NA	Control	12.4 (0.70)	12.7 (0.48)	12.9 (0.64)	13.5 (0.85)	14.3 (1.00)	14.9 (0.91)	14.2 (0.73)
		1-MCP	12.4 (0.70)	12.5 (0.78)	12.7 (0.83)	13.1 (0.73)	13.3 (0.76)	13.9 (0.76)	14.4 (0.84)
	KA	Control	12.4 (0.70)	12.6 (0.66)	12.5 (0.54)	12.7 (0.62)	13.7 (1.06)	14.8 (0.73)	15.3 (0.90)
		1-MCP	12.4 (0.70)	12.2 (0.68)	12.2 (0.68)	12.5 (0.83)	12.8 (0.77)	13.4 (0.88)	14.1 (0.87)
CP	NA	Control	11.9 (0.60)	12.5 (0.62)	12.7 (0.62)	13.4 (0.74)	13.9 (0.72)	15.0 (0.57)	13.9 (0.54)
		1-MCP	11.9 (0.60)	12.2 (0.55)	12.3 (0.73)	12.5 (0.67)	12.9 (0.72)	14.1 (0.62)	14.6 (0.64)
	CA	Control	11.9 (0.60)	12.2 (0.55)	12.3 (0.43)	12.7 (0.70)	13.5 (1.10)	14.4 (1.11)	14.9 (0.73)
		1-MCP	11.9 (0.60)	12.3 (0.78)	12.4 (0.77)	12.3 (0.86)	12.9 (1.07)	13.8 (0.83)	14.4 (0.78)
PD	NA	Control	12.1 (0.74)	12.2 (0.67)	12.6 (0.64)	13.8 (1.04)	14.2 (0.92)	14.6 (0.77)	14.5 (0.63)
		1-MCP	12.1 (0.74)	12.4 (0.72)	12.3 (0.82)	12.9 (1.00)	13.3 (1.06)	14.2 (0.69)	15.0 (0.66)
	CA	Control	12.1 (0.74)	12.2 (0.69)	12.3 (0.63)	12.3 (0.63)	14.1 (1.07)	14.9 (0.91)	15.2 (0.62)
		1-MCP	12.1 (0.74)	12.1 (0.56)	12.5 (0.87)	12.6 (0.97)	13.5 (1.26)	14.0 (1.18)	14.6 (0.79)
Main effects ^b									
Rootstock (A)			**	ns	ns	ns	ns	ns	ns
Storage atmosphere (B)			ns	ns	ns	***	ns	ns	*
1-MCP dose (C)			ns	ns	ns	**	***	***	ns
Interaction									
A x B			ns	ns	ns	ns	ns	ns	ns
A x C			ns	ns	ns	ns	ns	ns	ns
B x C			ns	ns	ns	*	ns	ns	ns
A x B x C			ns	ns	ns	ns	ns	ns	ns

^a Numbers in parentheses are the standard deviation of the mean (n = 10).

^b P-value of F ratio: ns, not significantly different; *P < 0.05; **P < 0.01; ***P < 0.001.

Table S7.

Acidity of untreated (control) and 1-MCP treated 'Conference' pears analysis after storage in normal (NA) and controlled (CA) atmospheres at 2011 year

Rootstock	Storage atmosphere	1-MCP dose	Days of storage						
			0	30	60	90	120	150	180
Q S1	NA	Control	0.21 (0.03)	0.18 (0.02)	0.16 (0.02)	0.09 (0.01)	0.11 (0.02)	0.09 (0.01)	0.05 (0.01)
		1-MCP	0.21 (0.03)	0.20 (0.03)	0.20 (0.02)	0.16 (0.02)	0.17 (0.02)	0.14 (0.02)	0.11 (0.02)
	KA	Control	0.21 (0.03)	0.18 (0.02)	0.19 (0.02)	0.17 (0.02)	0.14 (0.02)	0.15 (0.02)	0.13 (0.03)
		1-MCP	0.21 (0.03)	0.21 (0.03)	0.20 (0.02)	0.19 (0.02)	0.16 (0.02)	0.17 (0.01)	0.16 (0.01)
CP	NA	Control	0.19 (0.02)	0.18 (0.02)	0.14 (0.02)	0.11 (0.01)	0.10 (0.01)	0.10 (0.01)	0.06 (0.01)
		1-MCP	0.19 (0.02)	0.18 (0.02)	0.17 (0.02)	0.15 (0.02)	0.16 (0.02)	0.15 (0.02)	0.10 (0.02)
	CA	Control	0.19 (0.02)	0.19 (0.02)	0.19 (0.02)	0.18 (0.02)	0.15 (0.02)	0.16 (0.02)	0.12 (0.03)
		1-MCP	0.19 (0.02)	0.22 (0.02)	0.19 (0.02)	0.19 (0.02)	0.16 (0.03)	0.16 (0.02)	0.16 (0.02)
PD	NA	Control	0.20 (0.02)	0.17 (0.02)	0.15 (0.02)	0.13 (0.01)	0.14 (0.01)	0.10 (0.01)	0.05 (0.01)
		1-MCP	0.20 (0.02)	0.19 (0.01)	0.19 (0.01)	0.16 (0.02)	0.14 (0.01)	0.15 (0.02)	0.11 (0.03)
	CA	Control	0.20 (0.02)	0.19 (0.02)	0.20 (0.02)	0.18 (0.02)	0.16 (0.02)	0.15 (0.02)	0.13 (0.02)
		1-MCP	0.20 (0.02)	0.21 (0.02)	0.20 (0.02)	0.18 (0.02)	0.17 (0.01)	0.17 (0.01)	0.16 (0.01)
Main effects ^b									
Rootstock (A)			***	ns	*	ns	**	ns	ns
Storage atmosphere (B)			ns	***	***	***	***	***	***
1-MCP dose (C)			ns	***	***	***	***	***	***
Interaction									
A x B			ns	ns	*	*	ns	ns	ns
A x C			ns	ns	ns	**	***	ns	ns
B x C			ns	*	***	***	***	***	*
A x B x C			ns	ns	ns	ns	***	ns	ns

^a Numbers in parentheses are the standard deviation of the mean (n = 10).

^b P-value of F ratio: ns, not significantly different; *P < 0.05; **P < 0.01; ***P < 0.001.

Table S8.

Acidity of untreated (control) and 1-MCP treated 'Conference' pears analysis after storage in normal (NA) and controlled (CA) atmospheres at 2012 year

Rootstock	Storage atmosphere	1-MCP dose	Days of storage						
			0	30	60	90	120	150	180
Q S1	NA	Control	0.21 (0.01)	0.20 (0.01)	0.18 (0.01)	0.16 (0.01)	0.16 (0.01)	0.13 (0.01)	0.08 (0.01)
		1-MCP	0.21 (0.01)	0.18 (0.02)	0.18 (0.02)	0.18 (0.02)	0.18 (0.01)	0.12 (0.02)	0.12 (0.02)
	KA	Control	0.21 (0.01)	0.20 (0.02)	0.20 (0.02)	0.18 (0.01)	0.17 (0.01)	0.15 (0.02)	0.14 (0.02)
		1-MCP	0.21 (0.01)	0.21 (0.02)	0.20 (0.02)	0.20 (0.02)	0.18 (0.02)	0.19 (0.02)	0.17 (0.02)
CP	NA	Control	0.20 (0.01)	0.21 (0.02)	0.19 (0.01)	0.18 (0.01)	0.16 (0.02)	0.09 (0.01)	0.06 (0.01)
		1-MCP	0.20 (0.01)	0.19 (0.02)	0.19 (0.02)	0.18 (0.01)	0.17 (0.01)	0.11 (0.02)	0.11 (0.02)
	CA	Control	0.20 (0.01)	0.20 (0.02)	0.19 (0.02)	0.18 (0.01)	0.18 (0.01)	0.14 (0.02)	0.14 (0.02)
		1-MCP	0.20 (0.01)	0.21 (0.01)	0.20 (0.01)	0.19 (0.01)	0.17 (0.02)	0.18 (0.02)	0.18 (0.02)
PD	NA	Control	0.21 (0.01)	0.19 (0.02)	0.19 (0.02)	0.17 (0.02)	0.14 (0.01)	0.10 (0.01)	0.07 (0.01)
		1-MCP	0.21 (0.01)	0.19 (0.02)	0.18 (0.01)	0.18 (0.01)	0.17 (0.01)	0.11 (0.02)	0.10 (0.02)
	CA	Control	0.21 (0.01)	0.20 (0.02)	0.19 (0.02)	0.19 (0.02)	0.17 (0.01)	0.16 (0.02)	0.15 (0.02)
		1-MCP	0.21 (0.01)	0.21 (0.02)	0.19 (0.01)	0.19 (0.02)	0.18 (0.01)	0.18 (0.01)	0.17 (0.02)
Main effects ^b									
Rootstock (A)			***	ns	ns	ns	ns	***	ns
Storage atmosphere (B)			ns	***	**	***	***	***	***
1-MCP dose (C)			ns	ns	ns	***	***	***	***
Interaction									
A x B			ns	ns	ns	ns	ns	ns	*
A x C			ns	ns	ns	**	*	ns	*
B x C			ns	*	ns	ns	**	***	ns
A x B x C			ns	ns	ns	ns	ns	*	ns

^a Numbers in parentheses are the standard deviation of the mean (n = 10).

^b P-value of F ratio: ns, not significantly different; *P < 0.05; **P < 0.01; ***P < 0.001.

Table S9.

Acidity of untreated (control) and 1-MCP treated 'Conference' pears analysis after storage in normal (NA) and controlled (CA) atmospheres at 2013 year

Rootstock	Storage atmosphere	1-MCP dose	Days of storage						
			0	30	60	90	120	150	180
Q S1	NA	Control	0.18 (0.01)	0.17 (0.01)	0.15 (0.01)	0.13 (0.01)	0.10 (0.02)	0.07 (0.02)	0.07 (0.01)
		1-MCP	0.18 (0.01)	0.18 (0.01)	0.16 (0.01)	0.14 (0.01)	0.13 (0.01)	0.12 (0.02)	0.12 (0.02)
	KA	Control	0.18 (0.01)	0.18 (0.01)	0.18 (0.01)	0.16 (0.02)	0.14 (0.01)	0.13 (0.01)	0.13 (0.01)
		1-MCP	0.18 (0.01)	0.17 (0.01)	0.17 (0.01)	0.16 (0.01)	0.16 (0.01)	0.16 (0.01)	0.15 (0.01)
CP	NA	Control	0.18 (0.01)	0.19 (0.02)	0.15 (0.01)	0.14 (0.01)	0.11 (0.01)	0.08 (0.01)	0.06 (0.02)
		1-MCP	0.18 (0.01)	0.18 (0.02)	0.17 (0.01)	0.15 (0.01)	0.12 (0.02)	0.12 (0.02)	0.09 (0.02)
	CA	Control	0.18 (0.01)	0.18 (0.02)	0.18 (0.02)	0.16 (0.01)	0.15 (0.01)	0.15 (0.01)	0.13 (0.02)
		1-MCP	0.18 (0.01)	0.18 (0.02)	0.17 (0.01)	0.17 (0.01)	0.17 (0.01)	0.16 (0.01)	0.15 (0.01)
PD	NA	Control	0.18 (0.01)	0.18 (0.01)	0.14 (0.02)	0.13 (0.01)	0.10 (0.02)	0.07 (0.02)	0.06 (0.02)
		1-MCP	0.18 (0.01)	0.17 (0.02)	0.16 (0.01)	0.14 (0.01)	0.12 (0.02)	0.12 (0.02)	0.10 (0.02)
	CA	Control	0.18 (0.01)	0.18 (0.02)	0.18 (0.02)	0.15 (0.01)	0.15 (0.01)	0.14 (0.01)	0.12 (0.01)
		1-MCP	0.18 (0.01)	0.18 (0.01)	0.17 (0.01)	0.17 (0.01)	0.16 (0.01)	0.15 (0.01)	0.14 (0.01)
Main effects ^b									
Rootstock (A)			ns	ns	ns	ns	ns	ns	*
Storage atmosphere (B)			ns	ns	***	***	***	***	***
1-MCP dose (C)			ns	ns	ns	***	***	***	***
Interaction									
A x B			ns	ns	ns	ns	ns	ns	**
A x C			ns	ns	ns	ns	*	ns	ns
B x C			ns	ns	***	ns	ns	***	***
A x B x C			ns	ns	ns	ns	ns	ns	ns

^a Numbers in parentheses are the standard deviation of the mean (n = 10).

^b P-value of F ratio: ns, not significantly different; *P < 0.05; **P < 0.01; ***P < 0.001.

Table S10.

Impact of storage technology on the incidence of postharvest diseases and disorders in 2011

Rootstock	Storage atmosphere	1-MCP dose	ORAC μ mol TE/100 g (d.m.)	Brown rot	Bitter rot	Blue mold	Grey mold	Internal browning	Sanescent Scald
Q S1	NA	Control	2562.50 (50.50)	1.5 (0.94)	2.9 (2.56)	9.2 (2.81)	1.9 (0.68)	1.5 (0.06)	1.5 (0.97)
		1-MCP	2782.50 (53.07)	0.0 (0.00)	0.0 (0.00)	4.6 (1.75)	2.7 (1.09)	6.9 (2.10)	0.8 (0.71)
	KA	Control	2817.50 (29.34)	1.9 (1.64)	0.8 (0.77)	2.0 (0.66)	1.9 (1.18)	1.1 (1.16)	1.9 (1.61)
		1-MCP	2962.50 (68.43)	1.2 (0.63)	0.7 (0.71)	0.4 (0.58)	0.8 (0.73)	3.4 (0.72)	0.0 (0.00)
CP	NA	Control	2562.50 (50.50)	2.0 (0.75)	3.5 (1.87)	6.0 (0.64)	1.9 (1.40)	0.8 (0.80)	2.0 (1.77)
		1-MCP	2782.50 (53.07)	1.2 (1.27)	1.2 (1.27)	3.4 (0.81)	1.5 (1.03)	6.2 (0.94)	0.4 (0.67)
	CA	Control	2817.50 (29.34)	0.4 (0.63)	1.5 (1.00)	0.8 (1.26)	1.9 (1.20)	0.7 (0.67)	1.5 (1.03)
		1-MCP	2962.50 (68.43)	1.7 (1.28)	1.3 (0.85)	1.8 (0.76)	1.8 (1.56)	7.7 (3.07)	0.6 (1.03)
PD	NA	Control	2562.50 (50.50)	1.5 (1.04)	1.4 (1.33)	6.6 (1.42)	1.8 (0.61)	0.0 (0.00)	1.8 (1.52)
		1-MCP	2782.50 (53.07)	1.7 (1.08)	0.4 (0.70)	4.7 (1.35)	2.6 (1.90)	5.2 (3.25)	0.4 (0.68)
	CA	Control	2817.50 (29.34)	0.8 (0.71)	1.5 (0.95)	4.6 (2.11)	1.9 (0.68)	0.4 (0.67)	1.5 (0.96)
		1-MCP	2962.50 (68.43)	0.0 (0.00)	0.0 (0.00)	2.0 (1.29)	1.9 (0.53)	4.2 (1.94)	0.4 (0.70)
Main effects ^b									
Rootstock (A)			ns	ns	**	***	ns	**	ns
Storage atmosphere (B)			***		**	***	ns	ns	ns
1-MCP dose (C)			***	*	***	***	ns	***	***
Interaction									
A x B			ns	***	ns	***	ns	**	ns
A x C			ns	**	ns	**	ns	**	ns
B x C			***	ns	***	***	*	ns	ns
A x B x C			ns	**	**	**	ns	**	ns

^a Numbers in parentheses are the standard deviation of the mean (n = 10).^b P-value of F ratio: ns, not significantly different; *P < 0.05; **P < 0.01; ***P < 0.001.

Table S11.

Impact of storage technology on the incidence of postharvest diseases and disorders in 2012

Rootstock	Storage atmosphere	1-MCP dose	ORAC μ mol TE/100 g (d.m.)	Brown rot	Bitter rot	Blue mold	Grey mold	Internal browning	Sanescent Scald
Q S1	NA	Control	2435.00 (41.37)	1.6 (1.00)	4.4 (1.10)	9.0 (2.74)	3.6 (2.68)	0.4 (0.64)	2.4 (0.77)
		1-MCP	2537.50 (21.47)	0.8 (0.73)	3.8 (0.67)	7.9 (2.19)	4.3 (2.63)	4.9 (1.28)	1.9 (1.71)
	KA	Control	2627.50 (41.30)	2.6 (0.60)	2.6 (0.60)	4.5 (0.91)	1.9 (0.69)	2.2 (0.68)	0.8 (0.71)
		1-MCP	2777.50 (54.31)	0.8 (0.76)	1.2 (1.29)	3.0 (0.92)	0.8 (0.74)	6.1 (1.86)	1.1 (1.08)
CP	NA	Control	2435.00 (41.37)	3.3 (1.28)	3.3 (1.99)	10.7 (0.61)	5.0 (1.27)	1.2 (0.65)	3.1 (0.21)
		1-MCP	2537.50 (21.47)	1.2 (0.63)	3.4 (1.91)	6.8 (0.82)	4.1 (1.04)	3.8 (0.73)	0.7 (1.20)
	CA	Control	2627.50 (41.30)	1.2 (1.21)	2.8 (0.64)	4.3 (1.23)	2.0 (1.23)	1.2 (0.65)	2.0 (2.49)
		1-MCP	2777.50 (54.31)	0.4 (0.59)	1.5 (1.44)	2.2 (0.78)	1.1 (1.21)	5.4 (0.86)	1.1 (0.60)
PD	NA	Control	2435.00 (41.37)	0.9 (0.84)	4.9 (1.09)	9.9 (2.36)	6.5 (1.60)	0.8 (1.32)	4.0 (2.16)
		1-MCP	2537.50 (21.47)	0.7 (0.70)	3.4 (0.64)	7.8 (1.78)	6.4 (1.28)	3.4 (1.23)	0.4 (0.63)
	CA	Control	2627.50 (41.30)	1.2 (1.27)	2.6 (1.21)	3.4 (0.45)	2.3 (1.58)	2.7 (1.19)	1.8 (1.11)
		1-MCP	2777.50 (54.31)	0.4 (0.70)	0.8 (0.78)	2.5 (1.45)	1.3 (1.34)	5.8 (0.85)	2.9 (1.41)

Main effects^b

Rootstock (A)	ns	***	ns	ns	***	ns	*
Storage atmosphere (B)	***	ns	***	***	***	***	ns
1-MCP dose (C)	***	***	***	***	ns	***	***

Interaction

A x B	ns	***	ns	ns	**	*	ns
A x C	ns	*	ns	*	ns	*	*
B x C	**	ns	ns	ns	ns	ns	***
A x B x C	ns	**	ns	ns	ns	*	**

^a Numbers in parentheses are the standard deviation of the mean (n = 10).^b P-value of F ratio: ns, not significantly different; *P < 0.05; **P < 0.01; ***P < 0.001.

Table S12.

Impact of storage technology on the incidence of postharvest diseases and disorders in 2013

Rootstock	Storage atmosphere	1-MCP dose	ORAC μ mol TE/100 g (d.m.)	Brown rot	Bitter rot	Blue mold	Grey mold	Internal browning	Sanescent Scald
Q S1	NA	Control	2750 (64.29)	2.1 (0.63)	8.5 (2.23)	7.5 (0.42)	4.7 (1.47)	0.4 (0.58)	2.5 (1.48)
		1-MCP	2847 (79.02)	3.2 (1.10)	3.9 (0.61)	4.7 (0.82)	2.8 (0.14)	13.1 (0.85)	0.7 (1.10)
	KA	Control	2990 (34.64)	1.9 (0.66)	5.5 (0.66)	5.1 (3.40)	2.6 (1.17)	1.1 (0.60)	1.1 (1.20)
		1-MCP	3107 (20.41)	1.8 (0.56)	0.0 (0.00)	3.6 (1.21)	2.5 (0.64)	5.4 (0.68)	1.1 (0.59)
CP	NA	Control	2750 (64.29)	3.2 (1.05)	8.8 (2.27)	10.4 (0.61)	7.7 (1.90)	0.0 (0.00)	2.4 (1.70)
		1-MCP	2912 (16.83)	1.9 (0.71)	3.4 (0.57)	6.9 (1.82)	3.0 (1.44)	11.8 (1.75)	2.3 (1.24)
	CA	Control	2990 (34.64)	1.6 (1.06)	6.4 (0.44)	3.4 (2.19)	2.7 (0.67)	1.8 (1.79)	1.1 (1.15)
		1-MCP	3107 (20.41)	1.9 (0.53)	0.8 (0.71)	3.9 (0.89)	1.5 (0.96)	4.7 (2.08)	2.0 (1.25)
PD	NA	Control	2750 (64.29)	2.7 (0.64)	7.0 (1.60)	10.6 (2.30)	6.2 (2.11)	0.4 (0.63)	2.4 (1.65)
		1-MCP	2912 (16.83)	2.8 (0.60)	4.1 (1.49)	7.2 (1.70)	3.2 (1.13)	12.0 (0.95)	1.2 (1.29)
	CA	Control	2990 (34.64)	2.4 (1.53)	5.6 (1.27)	5.5 (3.47)	2.6 (0.49)	1.1 (0.62)	2.2 (0.52)
		1-MCP	3107 (20.41)	2.0 (0.71)	1.2 (0.63)	2.4 (0.75)	1.6 (0.05)	6.3 (1.12)	1.6 (1.51)

Main effects^b

Rootstock (A)	ns	ns	ns	*	ns	ns	ns
Storage atmosphere (B)	***	***	***	***	***	***	ns
1-MCP dose (C)	***	ns	***	***	***	***	*

Interaction

A x B	ns	ns	ns	***	**	ns	ns
A x C	ns	*	**		**	*	*
B x C	ns	ns	ns	*	***	***	*
A x B x C	ns	**	ns	ns	ns	*	ns

^a Numbers in parentheses are the standard deviation of the mean (n = 10).^b P-value of F ratio: ns, not significantly different; *P < 0.05; **P < 0.01; ***P < 0.001.