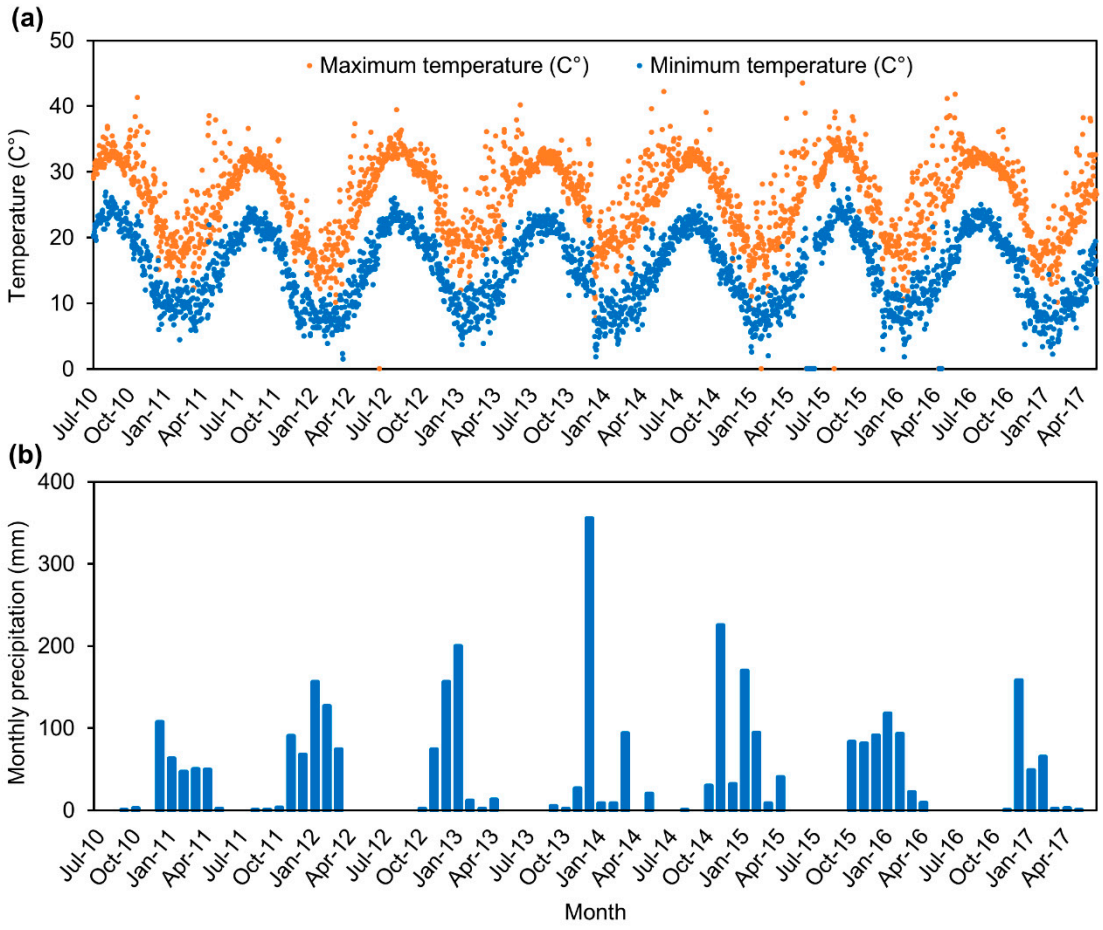

Figure S1: **Meteorological data**. Monthly precipitation (a) and daily maximum and minimum temperature (b). Obtained from an adjacent meteorological station (Negba) of the Israeli Ministry of Agriculture and Rural Development. Data was previously published in Haberman et al. (2019).

Table S1: Soil physical and chemical properties prior to the initiation of the experimental treatments (February 2010).

	Soil properties								
Soil depth (cm)	Sand (%)	Silt (%)	Clay (%)	SP [a] (%)	CEC [b] (meq $100g^{-1}$)	K [c] (mg kg^{-1})	P [d] (mg kg^{-1})	$CaCO_3$ (%)	O.M. [e] (%)
0-30	46.0±3.3	26.0±0.8	28.0±3.4	48.2±3.0	27.7±3.7	53.2±4.2	12.6±2.8	21.8±2.5	0.56±0.03
30-60	43.8±5.0	26.8±2.3	29.4±5.5	47.2±6.0	26.9±4.8	43.2±2.6	6.5±1.5	25.2±4.1	0.45±0.04
60-90	43.4±7.6	23.6±1.2	33.0±6.8	47.6±6.0	28.0±5.4	45.9±2.6	3.7±0.5	25.4±4.6	0.39±0.03

Numbers are mean values of five sampling locations ± standard error of the mean.

[a] Saturation percentage.

[b] Cation exchange capacity, determined with sodium acetate extraction.

[c] $CaCl_2$ extraction.

[d] Olsen bicarbonate extraction.

[e] Organic matter content.

Data was previously published in Haberman et al. (2019).

Table S2: Seasonal fruit yields and fruit K offsets.

	Annual K fertilization	Season					
	(kg ha^{-1})	2011	2012	2013	2014	2015	2016
Seasonal fruit yield (kg tree^{-1})	0	45.9±3.9	36.5±5.6	35.5±6.0	23.6±6.9	28.3±6.7	21.7±5.6
	250 [b]	42.7±4.6	41.8±3.2	41.9±6.5	37.6±6.4	25.0±6.4	32.7±5.3
Fruit K concentration (%)	0	1.17±0.05	1.31±0.04	1.22±0.04	1.42±0.06	1.43±0.05	
	250	1.15±0.04	1.23±0.06	0.92±0.05	1.11±0.06	1.23±0.06	
Fruit yield K offset (kg ha^{-1}) [a]	0	93.3±7.8	79.2±11.5	56.6±9.0	45.5±13.1	60.2±15.3	45.8±11.8
	250	84.7±8.4	99.7±8.9	90.7±14.3	94.1±16.4	64.1±16.3	78.4±13.8

Numbers are mean values of 14 replicates (trees) ± standard error of the mean.

[a] Calculated according to 360 trees per ha and an estimate for dry fruit weight of 50%. For 2016 season, the calculation is made with the average fruit K concentration of 2012-2015 seasons.

[b] Data was previously published in Haberman et al. (2019).