



Supplementary Materials

Determination of Target Crop Loads for Maximising Fruit Quality and Return Bloom in Several Apple Cultivars

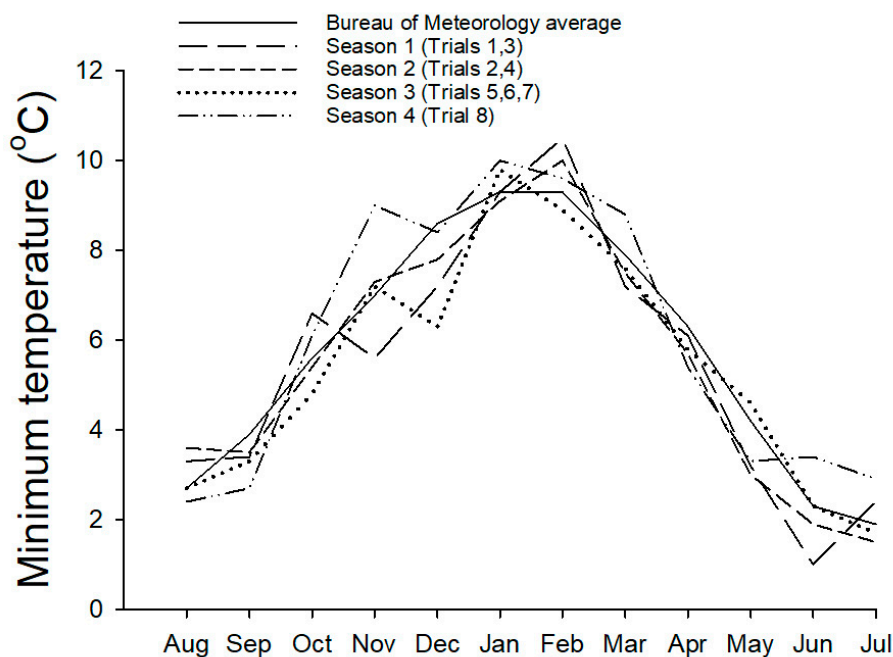


Figure S1. Minimum monthly temperatures for Huon Valley trial sites.

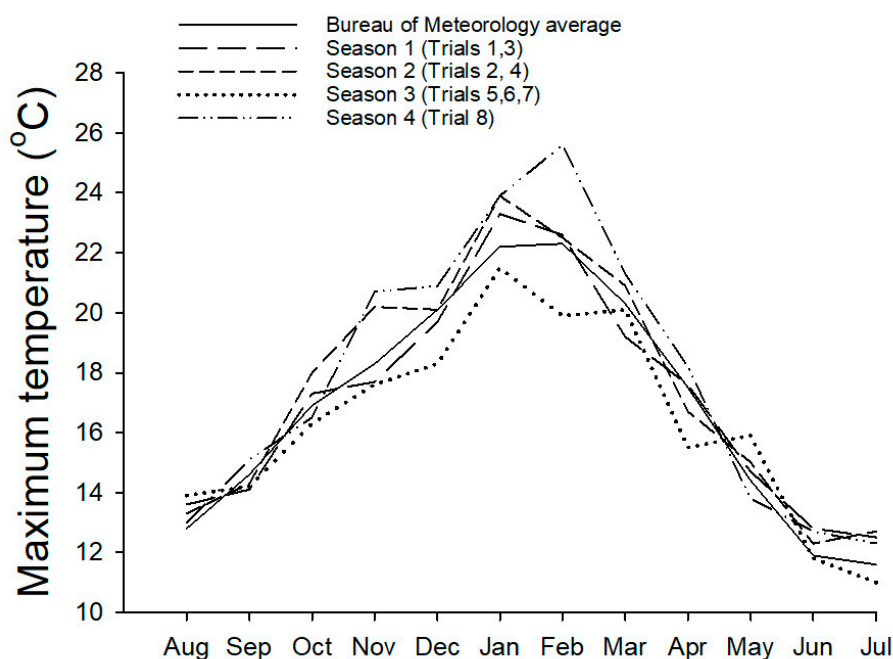


Figure S2. Maximum monthly temperatures for Huon Valley trial sites.

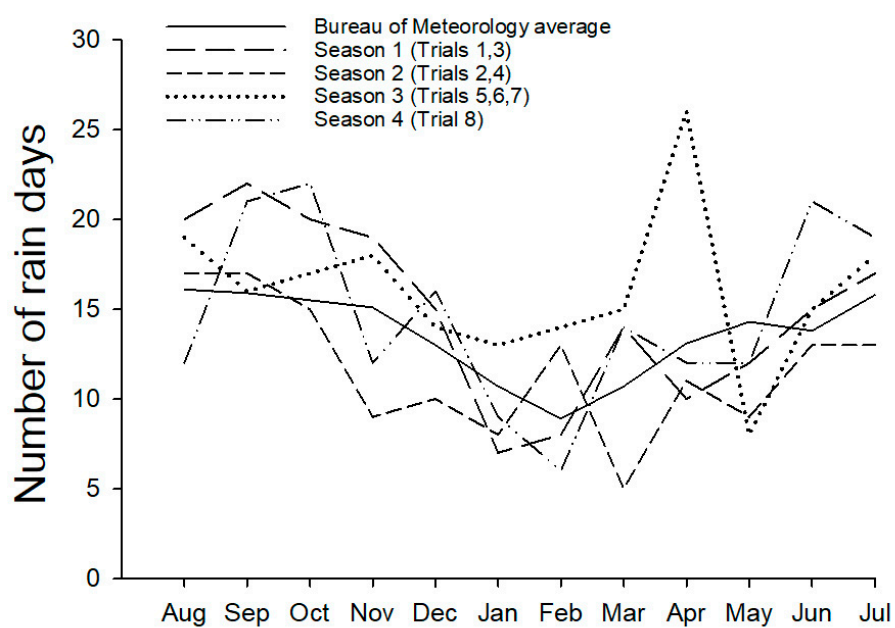


Figure S3. Number of rain days for Huon Valley trial sites.

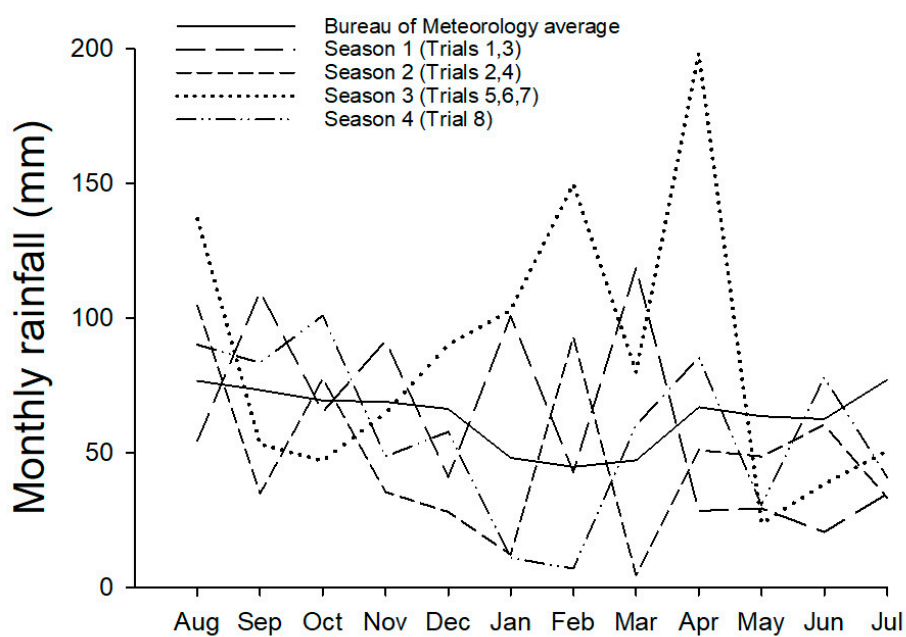


Figure S4. Average monthly rainfall for Huon Valley trial sites.

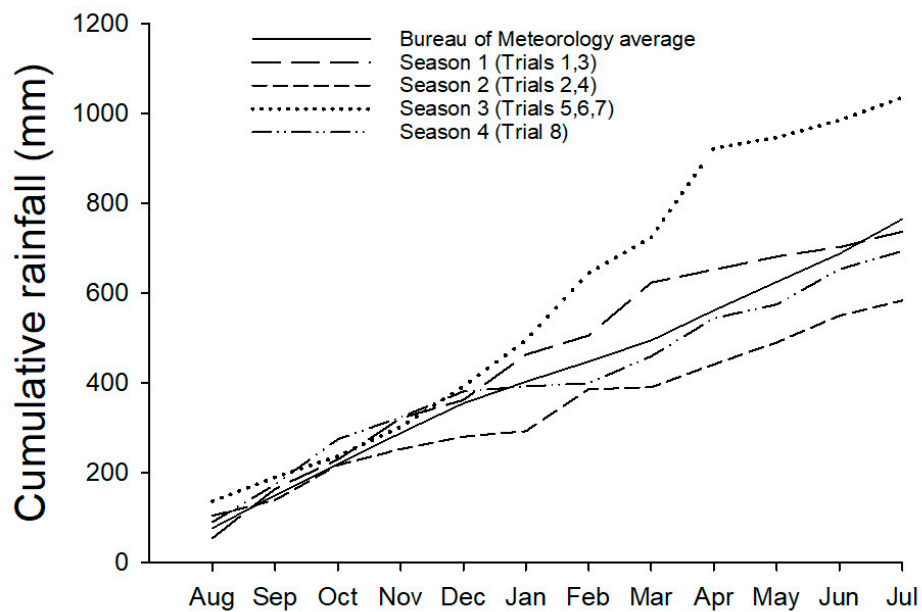


Figure S5. Cumulative rainfall over the growing season for trial sites.

Table S1. Rating scales used for background fruit colour (Frappell and O'Loughlin 1962).

Rating	Code	Description
1.	G	full green with no trace of yellow
2.	GGY	more green than yellow
3.	GY	green and yellow equal
4.	GYG	more yellow than green
5.	Y	full yellow with no trace of green

Table S2. Mean crop loads (\pm standard deviation) obtained for each treatment in Trials 1–8. All values are number of fruit cm^{-2} trunk cross-sectional area. wAFB, weeks after full bloom.

(i) Trials 1-3: 'Fuji' and 'Delicious'

Target	Trial 1	Trial 2	Trial 3
crop load	'Fuji'	'Fuji'	'Delicious'
2	2.1 (± 0.5)	2.3 (± 0.4)	2.0 (± 0.1)
4	4.2 (± 0.2)	4.2 (± 0.2)	4.4 (± 0.2)
6	5.8 (± 0.5)	6.9 (± 0.4)	6.1 (± 0.4)
8	7.9 (± 0.8)	8.1 (± 0.3)	7.8 (± 0.7)
10	11.0 (± 1.6)	10.0 (± 0.2)	9.9 (± 0.4)

(ii) Trial 4: 'Delicious'

Time	Target	Actual	Target	Actual
1 wAFB	3	3.7 (± 0.5)	6	7.8 (± 0.7)
2 wAFB	3	4.3 (± 0.2)	6	7.6 (± 1.2)
4 wAFB	3	4.6 (± 0.8)	6	7.6 (± 1.3)
8 wAFB	3	4.7 (± 0.3)	6	7.9 (± 0.1)
12 wAFB	3	3.7 (± 0.5)	6	6.6 (± 0.5)

16 wAFB	3	3.6 (± 0.7)	6	5.7 (± 1.1)
---------	---	-------------------	---	-------------------

(iii) Trial 5: 'Pink Lady'

Time	crop load	M26	MM106
2 wAFB	4	4.0 (± 0.3)	4.1 (± 0.5)
	6	6.2 (± 0.7)	6.1 (± 0.6)
	8	8.4 (± 0.4)	8.6 (± 1.4)
6 wAFB	4	3.5 (± 0.4)	3.9 (± 0.2)
	6	6.2 (± 0.3)	5.7 (± 0.3)
	8	8.1 (± 1.2)	7.6 (± 1.0)
10 wAFB	4	4.1 (± 0.2)	3.9 (± 0.4)
	6	6.3 (± 0.6)	6.2 (± 0.5)
	8	8.0 (± 0.3)	8.2 (± 0.3)
14 wAFB	4	4.0 (± 0.2)	3.9 (± 0.1)
	6	5.9 (± 1.0)	5.9 (± 0.5)
	8	8.2 (± 0.7)	8.3 (± 1.7)

(iii) Trials 5-6: 'Pink Lady' and 'Jonagold'

Time	Target	Pink Lady		Jonagold	
(wAFB)	crop load	M26	MM106	M26	MM106
2	4	4.0 (3.6-4.3)	4.0 (3.5-4.3)	4.3 (3.8-4.6)	4.0 (3.9-4.1)
	6	6.2 (5.1-6.9)	6.1 (5.5-6.7)	5.9 (5.3-6.4)	6.2 (5.8-6.7)
	8	8.4 (7.9-9.0)	8.6 (7.5-10.7)	8.3 (7.5-9.3)	7.2 (7.0-7.5)
6	4	3.8 (3.0-4.7)	3.9 (3.6-4.1)	3.9 (3.4-4.1)	3.9 (3.0-4.8)
	6	6.2 (5.7-6.5)	5.7 (5.3-6.2)	6.1 (5.3-6.9)	6.1 (5.7-6.7)
	8	8.1 (6.7-9.0)	7.6 (6.7-8.7)	7.9 (7.7-8.2)	7.5 (7.1-7.9)
10	4	4.1 (3.7-4.4)	3.9 (3.3-4.4)	4.0 (3.8-4.1)	3.9 (3.5-4.1)
	6	6.3 (5.8-7.3)	6.2 (5.8-7.0)	6.4 (6.2-6.6)	6.2 (5.8-6.7)
	8	8.0 (7.7-8.3)	8.3 (8.0-8.8)	8.1 (7.0-9.1)	7.5 (7.2-7.6)
14	4	4.0 (3.6-4.1)	3.9 (3.6-4.0)	4.0 (3.9-4.1)	3.8 (3.1-4.5)
	6	5.9 (4.5-7.0)	5.9 (5.3-6.3)	6.1 (5.8-6.5)	6.0 (5.7-6.4)
	8	8.2 (7.5-9.3)	8.3 (6.5-10.7)	7.8 (7.6-7.9)	8.1 (6.8-9.2)

(iv) Trial 7: 'Braeburn'

Time	Target	Braeburn	
(wAFB)	crop load	M26	MM106
2	2	2.3 (1.6-3.0)	2.4 (2.2-2.6)
	4	4.2 (3.2-4.6)	4.0 (3.2-4.8)
	6	5.8 (4.8-6.8)	5.9 (5.4-6.5)
	8	8.3 (7.6-9.4)	7.9 (7.1-9.2)

6	2	3.3 (2.9-3.6)	3.0 (2.7-3.5)
	4	4.0 (3.8-4.1)	4.3 (3.7-4.8)
	6	6.0 (5.2-6.4)	5.9 (5.2-6.9)
	8	7.3 (7.2-7.4)	8.3 (7.6-9.2)
10	2	2.6 (2.2-3.1)	2.0 (1.9-2.1)
	4	4.0 (3.9-4.1)	4.2 (3.9-4.5)
	6	5.7 (5.5-6.0)	6.1 (5.8-6.6)
	8	7.2 (6.9-7.4)	8.0 (7.1-8.9)

(v) Trial 8: 'Gala'

Time	Target	Actual	Target	Actual	Target	Actual
2 wAFB	3	3.4 (± 0.6)	6	6.2 (± 1.4)	9	9.4 (± 0.9)
6 wAFB	3	4.1 (± 0.5)	6	7.4 (± 0.4)	9	10.3 (± 0.7)
10 wAFB	3	3.2 (± 0.3)	6	6.3 (± 0.2)	9	9.6 (± 0.3)
14 wAFB	3	3.8 (± 0.2)	6	6.6 (± 0.2)	9	9.2 (± 0.8)