

















Marlborough Research Centre Blenheim																										
Daily weather data is summarised at 9am																										
Date	Month	Year	Rain	Air	Air	Air	RH	Air	Wet	Dry	Air	Max	Min	Daily	Grass	10cm	20cm	30cm	100cm	Solar	Windrun	Penman	Soil	Moist	Sun	Growing
			Daily	9am	9am	9am	Daily	9am	9am	9am	9am	Daily	Daily	Daily	Daily	9am	9am	9am	9am	Daily	Daily	ET	5-35cm	Daily	Days	>10°C
			mm	°C	°C	°C	%	°C	°C	°C	°C	°C	°C	°C	°C	°C	°C	°C	°C	mj/m2	km	mm	%	hours	Days	
1	9	2009	0.0	14.0	10.1	73.0	16.9	7.5	3.7	10.1	10.5	11.1	13.8	459.8	2.6	41.1	9.3	2.2								
2	9	2009	0.0	11.0	9.1	65.0	16.7	2.9	-1.5	8.2	10.0	11.1	15.5	442.4	3	40.0	10.6	0.0								
3	9	2009	0.0	8.2	6.3	81.8	11.6	3.9	-0.6	7.3	8.5	9.4	11.1	203.7	1.2	39.3	5.2	0.0								
4	9	2009	0.0	4.4	3.0	81.6	12.5	-1.1	-3.7	5.7	7.3	8.6	11.1	248.7	2	38.8	10.5	0.0								
5	9	2009	0.0	4.5	3.1	80.7	14.2	-0.6	-2.3	5.6	7.0	8.2	11.0	189.9	2.1	38.3	11.0	0.0								
6	9	2009	0.0	4.9	3.5	82.7	14.4	-1.1	-4.3	5.7	7.1	8.2	10.9	224.7	2.1	37.7	11.0	0.0								
7	9	2009	0.0	6.7	4.8	77.3	18.9	0.2	-2.1	6.2	7.4	8.4	10.9	16.1	2.4	37.3	10.6	0.0								
8	9	2009	0.0	8.7	6.3	67.7	21.2	2.2	-0.5	6.9	8.0	8.8	10.8	16.7	2.8	36.7	11.2	1.7								
9	9	2009	0.0	9.9	6.7	71.5	20.4	2.5	-2.9	7.1	8.1	9.0	10.8	16.9	2.9	36.2	11.0	1.4								
10	9	2009	0.0	11.2	8.8	78.7	16.1	5.1	0.7	8.2	8.9	9.4	10.7	11.0	2.1	35.5	4.5	0.6								
11	9	2009	2.4	13.0	12.2	90.4	15.5	10.8	8.0	10.6	10.5	10.2	10.8	5.0	0.8	35.3	0.0	3.2								
12	9	2009	0.6	12.6	11.3	88.6	15.4	10.5	7.6	11.2	11.2	10.9	10.8	6.5	1	35.4	0.1	3.0								
13	9	2009	0.0	14.6	12.0	85.9	19.6	9.3	6.3	10.6	10.9	10.9	10.9	16.8	191.1	2.4	35.3	4.4								
14	9	2009	0.0	12.2	10.7	66.3	23.2	6.1	2.3	10.5	11.0	11.2	11.0	15.1	341.3	3.3	34.9	8.2	4.6							
15	9	2009	0.0	17.6	13.6	81.6	19.4	12.1	9.9	12.0	12.0	11.1	14.5	252.2	2.1	34.2	6.7	5.7								
16	9	2009	0.0	12.0	10.6	73.9	19.4	3.0	-0.3	9.6	10.5	11.2	11.3	15.1	318.6	2.6	33.7	8.1	1.2							
17	9	2009	0.0	9.0	7.6	83.4	16.8	4.5	0.6	9.4	10.3	10.9	11.4	16.6	253.1	2.5	33.8	11.0	0.7							
18	9	2009	1.4	13.3	9.5	77.9	17.7	6.0	3.2	10.0	10.7	11.0	11.4	6.6	326.4	1.4	33.4	0.5	1.9							
19	9	2009	0.0	11.8	10.0	84.9	13.9	7.5	4.7	10.7	11.0	11.5	16.5	252.4	2.2	33.3	6.9	0.7								
20	9	2009	0.0	7.3	5.9	82.6	15.5	0.4	-1.5	8.7	10.1	10.9	11.5	19.3	186.1	2.6	33.0	11.6	0.0							
21	9	2009	2.0	11.5	8.9	73.6	18.6	1.8	-2.4	8.5	9.7	10.6	11.6	19.2	466.6	3.6	32.6	11.4	0.2							
22	9	2009	0.0	15.1	12.0	71.0	19.3	9.5	7.5	11.3	11.4	11.3	11.6	17.3	423.0	3.1	32.2	9.9	4.4							
23	9	2009	0.0	9.2	6.9	69.6	17.4	2.5	-2.0	8.9	10.2	10.9	11.6	17.4	294.7	3	32.0	6.5	0.0							
24	9	2009	17.0	7.2	5.6	93.5	10.7	2.0	2.1	9.6	10.7	11.1	11.7	3.6	334.7	0.5	33.7	0.0	0.0							
25	9	2009	0.4	10.9	10.3	85.3	12.5	4.7	4.8	9.4	9.7	10.0	11.7	8.6	267.8	1.1	32.7	0.0	0.0							
26	9	2009	0.0	10.0	8.8	82.1	15.4	3.5	-0.1	9.4	10.0	10.4	11.7	19.5	204.5	2.8	32.8	8.9	0.0							
27	9	2009	11.8	11.8	10.2	97.5	19.4	5.8	4.1	11.3	11.5	11.5	11.6	17.3	203.4	2.8	37.5	9.0	2.6							
28	9	2009	7.2	12.1	11.9	93.3	15.2	10.9	10.4	12.6	12.9	12.5	11.7	6.1	134.5	0.8	41.0	0.2	3.1							
29	9	2009	7.2	8.1	7.6	94.8	14.9	6.3	5.0	11.2	12.3	12.4	11.8	9.6	152.4	1.4	42.5	0.8	0.6							
30	9	2009	0.2	10.8	10.4	87.2	15.9	8.0	8.5	12.2	12.7	12.6	11.9	11.7	159.6	1.3	41.2	0.1	1.9							
Means				10.5	8.6	80.8	16.6	4.9	2.2	9.3	10.0	10.5	11.3	13.7	267.9	2.2	36.0	6.9	1.5							
Totals			50.2											410.4	8035.9	64.5		205.9	43.9							

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Date	Month	Year	Rain	Air	Air	Air	RH	Air	Air	Air	Grass	10cm	20cm	30cm	100cm	Solar	Windrun	Penman	Soil	Growing						
			Daily	Dry	Wet	Wet	Daily	Max	Min	Min	Daily	9am	9am	9am	9am	Daily	Daily	ET	Moist	Degree						
			mm	9am	9am	9am	%	°C	°C	°C	°C	°C	°C	°C	°C	mj/m2	km	mm	5-35cm	Days						
				°C	°C	°C		°C	°C	°C	°C	°C	°C	°C	°C			mm	%	>10°C						
1	10	2009	0	9.2	8.1	67.5	15.4	5.6	4.1	12.7	12.5	11.4	12.5	12.7	12.0	19.9	298.0	2.0	40.3	9.5						
2	10	2009	0	14.6	11.3	64.7	21.8	8.0	4.6	12.0	12.7	12.0	12.7	12.9	12.1	17.0	371.1	3.4	38.9	4.9						
3	10	2009	0	12.7	9.4	81.8	19.0	9.0	6.5	11.0	12.3	12.8	12.3	12.8	12.3	21.9	439.0	3.2	38.0	4.0						
4	10	2009	0.8	6.9	5.5	78.2	12.9	4.7	1.5	9.9	11.5	12.3	12.3	12.3	12.3	15.6	291.1	1.9	37.9	0.0						
5	10	2009	0	6.9	5.3	80.8	11.0	4.2	2.8	9.2	10.7	11.5	12.4	17.1	286.9	1.5	286.9	1.5	37.3	0.0						
6	10	2009	0	5.0	3.7	85.0	14.1	0.1	-1.2	8.1	10.0	11.1	12.4	23.0	196.3	2.1	196.3	2.1	36.8	0.0						
7	10	2009	0	6.0	4.9	71.4	14.4	0.3	-1.8	8.2	10.1	11.1	12.4	22.2	244.8	2.4	244.8	2.4	36.2	0.0						
8	10	2009	42.2	10.6	8.1	93.9	18.1	4.7	1.4	10.0	11.2	11.7	12.3	9.3	227.6	1.9	227.6	1.9	47.0	1.4						
9	10	2009	6.2	8.1	7.6	61.6	8.9	8.2	7.9	10.7	11.5	11.7	12.3	6.0	249.6	0.9	249.6	0.9	43.0	0.0						
10	10	2009	0	9.0	5.8	80.0	14.6	5.4	2.3	8.1	9.6	10.6	12.3	22.2	220.7	2.5	220.7	2.5	41.2	0.0						
11	10	2009	0	7.5	5.9	75.4	21.2	1.7	-0.2	8.3	10.0	10.9	12.3	25.3	279.0	3.8	279.0	3.8	39.6	1.4						
12	10	2009	0	10.9	8.7	66.5	21.1	6.8	3.2	11.0	11.8	12.0	12.3	25.8	267.1	3.8	267.1	3.8	38.6	3.9						
13	10	2009	0	11.6	8.5	81.1	19.8	6.1	1.3	11.0	12.4	12.9	12.3	24.7	220.2	3.5	220.2	3.5	37.6	2.9						
14	10	2009	6	12.5	10.8	82.5	16.8	7.0	4.1	12.1	13.0	13.3	12.4	10.9	221.4	1.3	221.4	1.3	37.6	1.9						
15	10	2009	19.2	12.2	10.6	96.4	22.8	6.1	1.8	11.1	12.4	12.9	12.7	18.9	183.3	3.3	183.3	3.3	43.5	4.4						
16	10	2009	7.6	10.8	10.5	90.5	12.8	10.5	9.5	13.4	14.1	13.9	12.7	7.2	146.6	0.5	146.6	0.5	42.2	1.6						
17	10	2009	15	10.5	9.7	95.5	14.9	7.3	5.1	11.7	12.7	13.1	12.8	6.4	130.6	0.7	130.6	0.7	44.3	1.1						
18	10	2009	0.2	10.9	10.5	82.1	15.1	9.1	7.1	12.2	12.8	13.0	12.9	13.8	175.0	1.6	175.0	1.6	41.7	2.1						
19	10	2009	2.4	7.3	5.9	92.3	16.8	1.6	-0.4	9.4	11.4	12.5	13.0	19.4	280.8	2.2	280.8	2.2	40.3	0.0						
20	10	2009	0.4	8.0	7.4	76.5	15.4	7.1	5.9	11.3	12.5	12.9	13.0	17.4	226.3	1.7	226.3	1.7	40.2	1.3						
21	10	2009	0.0	11.3	9.2	80.7	20.8	4.5	1.6	10.6	12.0	12.7	13.0	20.5	362.7	3.4	362.7	3.4	39.0	2.6						
22	10	2009	6.6	15.5	13.6	87.6	15.6	10.8	11.7	12.9	13.3	13.4	13.0	11.2	201.2	1.5	201.2	1.5	39.7	3.2						
23	10	2009	0.0	9.2	8.2	85.5	14.7	5.7	3.3	11.3	12.4	13.0	13.1	17.8	171.5	1.6	171.5	1.6	39.0	0.2						
24	10	2009	0.0	10.3	9.1	85.1	15.6	7.5	5.4	12.3	13.0	13.4	13.2	24.5	203.5	1.8	203.5	1.8	38.4	1.6						
25	10	2009	0.0	12.0	10.7	79.5	20.0	6.0	4.7	12.2	13.3	13.9	13.2	27.9	253.1	3.3	253.1	3.3	37.4	3.0						
26	10	2009	1.2	13.1	11.2	86.0	20.8	6.0	3.1	12.4	13.5	14.2	13.3	22.8	247.0	3.1	247.0	3.1	36.7	3.4						
27	10	2009	0.0	10.8	9.6	81.1	19.3	9.0	8.7	14.0	15.0	15.0	13.4	29.0	234.2	3.2	234.2	3.2	35.6	4.1						
28	10	2009	7.6	10.3	8.7	73.9	23.2	4.3	2.0	12.4	14.0	14.9	13.6	22.8	284.1	3.8	284.1	3.8	35.7	3.8						
29	10	2009	0.0	9.4	7.2	77.9	14.7	4.3	0.6	12.3	14.0	14.8	13.8	18.1	137.1	2.5	137.1	2.5	35.6	0.0						
30	10	2009	0.0	8.9	7.1	82.8	17.1	4.2	2.0	11.7	13.1	14.1	13.9	25.4	165.5	2.4	165.5	2.4	35.4	0.7						
31	10	2009	0.0	10.7	9.2	81.9	15.2	4.6	2.1	12.7	13.9	14.6	13.9	20.4	175.0	2.0	175.0	2.0	34.9	0.0						
Means				10.1	8.5	80.8	16.9	5.8	3.6	11.1	12.3	12.9	12.8	18.8	238.4	2.4	238.4	2.4	39.0	1.7						
Totals			115.4												584.2	7390.3	73.2			213.4	54.1					



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Date	Month	Year	Rain	Air	Air	Air	RH	Air	Air	Air	Grass	Soil Temperatures			Solar	Windrun	Penman	Soil	Growing							
			Daily	Dry	Wet	Max	Daily	Min	Min	Min	Daily	10cm	20cm	30cm	100cm	Daily	Daily	ET	Moist	Degree						
			mm	9am	9am	9am	%	9am	9am	9am	9am	9am	9am	9am	9am	Daily	Daily	mm	5-35cm	Days						
				°C	°C	°C		°C	°C	°C	°C	°C	°C	°C	°C	mj/m2	km	mm	%	>10°C						
1	12	2009	7.2	11.8	11.5	18.7	96.8	10.6	10.3	14.7	15.8	16.3	16.1	13.6	137.0	1.3	21.3	2.7	4.7							
2	12	2009	6.4	14.3	14.0	15.4	82.2	11.7	10.9	15.8	16.4	16.5	16.1	7.9	271.6	0.9	23.3	0.0	3.6							
3	12	2009	0.0	10.3	8.8	12.7	74.9	9.1	8.8	13.7	15.1	15.9	16.0	14.1	271.8	1.9	25.3	0.0	3.9							
4	12	2009	0.0	11.0	8.8	15.1	78.5	9.3	8.8	12.9	14.2	15.0	16.0	17.9	202.5	2.2	25.3	0.0	2.2							
5	12	2009	0.0	13.8	11.7	23.1	69.0	7.4	5.1	14.5	14.6	15.2	15.8	32.3	233.7	4.1	24.2	13.2	5.2							
6	12	2009	0.8	18.6	15.1	20.5	80.3	11.3	7.6	16.7	16.7	16.8	15.8	16.7	276.1	2.7	25.0	4.5	5.9							
7	12	2009	0.0	15.9	13.9	21.2	73.1	9.2	6.1	16.0	16.2	16.6	15.8	33.2	243.9	3.4	24.4	13.5	5.2							
8	12	2009	0.0	18.1	15.1	29.0	73.9	10.2	7.7	17.2	17.4	17.7	15.9	29.5	247.9	6.7	23.6	11.7	9.6							
9	12	2009	0.0	17.3	14.5	26.0	78.5	14.2	11.2	18.3	19.2	19.1	16.0	29.9	418.2	5.8	21.7	9.1	10.1							
10	12	2009	0.4	21.1	18.5	22.3	83.5	17.3	15.7	21.1	20.4	19.8	16.2	28.9	244.7	3.2	21.3	8.5	9.8							
11	12	2009	1.2	20.2	18.3	24.3	61.0	17.5	16.4	21.3	21.4	20.8	16.4	20.5	333.3	3.8	20.9	3.1	10.9							
12	12	2009	0.0	20.6	15.9	23.9	59.0	17.3	15.1	20.3	20.8	20.4	16.7	30.4	515.2	6.3	20.2	8.9	10.6							
13	12	2009	0.0	17.9	13.2	23.4	59.5	12.0	8.9	18.8	19.3	19.8	16.9	27.1	509.6	5.6	19.2	10.9	7.7							
14	12	2009	0.0	17.9	13.3	22.8	76.9	12.3	9.1	18.6	18.9	19.4	17.0	27.1	244.0	5.7	18.7	12.0	7.5							
15	12	2009	0.0	12.5	10.4	16.5	67.6	6.8	2.9	17.6	18.7	19.3	17.1	19.1	216.5	2.5	18.4	4.5	1.6							
16	12	2009	0.0	14.1	10.9	20.8	76.2	4.7	1.8	16.1	17.1	18.1	17.2	27.9	260.4	4.1	18.6	9.2	2.8							
17	12	2009	0.0	14.2	11.9	23.1	48.3	6.3	3.7	17.6	18.1	18.6	17.2	30.5	231.0	4.6	17.6	12.2	4.7							
18	12	2009	0.0	22.8	15.9	27.8	74.6	11.1	6.3	19.5	19.4	19.6	17.2	30.8	507.6	8.5	17.4	13.8	9.4							
19	12	2009	0.0	19.4	16.5	25.4	57.8	16.9	14.7	20.5	20.9	20.6	17.2	22.0	430.1	4.8	17.1	3.1	11.1							
20	12	2009	0.6	19.7	14.7	25.1	78.2	16.7	13.5	20.8	20.8	20.7	17.4	31.5	354.6	5.9	16.5	12.4	10.9							
21	12	2009	0.0	12.9	10.9	18.2	76.3	8.6	6.3	19.2	20.2	20.6	17.5	23.9	170.0	3.2	16.2	7.3	3.4							
22	12	2009	0.0	14.1	11.8	19.9	66.6	10.8	10.2	19.8	20.0	20.1	17.6	33.8	231.9	3.6	16.0	12.5	5.4							
23	12	2009	0.0	17.9	14.2	23.1	71.1	7.9	2.9	19.6	20.0	20.5	17.7	34.1	343.0	5.2	15.7	14.7	5.5							
24	12	2009	0.0	16.8	13.7	22.3	77.7	9.3	5.9	20.3	20.5	20.8	17.8	32.7	189.0	4.5	16.0	13.7	5.8							
25	12	2009	0.0	18.1	15.7	28.1	62.0	9.3	6.7	20.8	21.0	21.3	17.9	31.6	392.4	6.8	15.5	13.8	8.7							
26	12	2009	0.0	22.8	17.9	28.8	62.8	17.0	10.8	22.2	22.1	22.0	18.0	24.6	380.2	6.8	15.3	7.9	12.9							
27	12	2009	0.0	20.8	15.1	27.5	83.4	19.1	17.2	22.5	22.8	22.4	18.1	15.8	261.6	3.5	15.3	2.4	13.3							
28	12	2009	3.2	15.1	12.9	21.4	74.4	12.9	13.0	20.3	21.2	21.4	18.3	30.0	219.9	3.0	15.2	8.9	7.1							
29	12	2009	0.0	18.5	14.9	26.5	50.5	14.9	14.4	21.1	22.3	22.3	18.4	27.8	509.5	9.1	14.7	9.3	10.7							
30	12	2009	0.0	21.3	18.2	24.9	78.6	18.2	13.5	21.3	21.6	21.8	18.5	27.6	326.7	4.5	15.5	9.2	11.5							
31	12	2009	0.0	11.8	9.9	20.7	67.2	5.8	2.2	18.4	20.2	21.1	18.5	30.5	289.2	3.8	15.0	11.1	3.3							
Means			19.8	16.8	13.6	22.5	71.6	11.8	9.3	18.6	19.1	19.4	17.0	25.9	305.3	4.5	18.8	8.5	7.2							
Totals														803.7	9463.1	138.1		264.2	222.0							