

Appendix II - Hancock Weather Data 2007

Table 1. Data recorded by a weather station in the potato canopy at the Hancock Agricultural Research Station, Hancock, WI. Temperature scale is Fahrenheit. P-Day and Severity Values are calculated beginning at 50% emergence for the field (14 May).

Date	Air Temperature (F)			Hours >90% RH	Rainfall/Irrig. (In.)	Severity Values	Sum of Severity Values	P-Days	Sum of P-Days
	Max.	Min.	Avg.						
Apr 24	62.2	48.1	55.2	0	0.4				
Apr 25	57.8	40.4	49.1	0	0.1				
Apr 26	43.9	39.9	41.9	18	0.3				
Apr 27	68.3	40.1	54.2	0	0.0				
Apr 28	75.7	44.7	60.2	0	0.0				
Apr 29	89.8	46.8	68.3	0	0.0				
Apr 30	69.6	45.9	57.8	0	0.9				
May 1	73.3	46.1	59.7	0	1.3				
May 2	67.1	36.9	52.0	0	0.0				
May 3	67.5	41.8	54.6	0	0.0				
May 4	71.3	44.4	57.8	0	0.0				
May 5	59.7	47.8	53.7	0	0.1				
May 6	66.7	44.9	55.8	0	0.0				
May 7	80.2	51.8	66.0	0	0.0				
May 8	84.6	53.3	68.9	0	0.0				
May 9	87.4	56.3	71.8	0	0.1				
May 10	89.6	52.4	71.0	0	0.0				
May 11	77.4	49.5	63.4	0	0.0				
May 12	73.2	45.7	59.4	0	0.0				
May 13	60.6	44.0	52.3	0	0.2				
May 14	87.2	55.8	71.5	0	0.6	0	0	7.4	7.4
May 15	68.2	46.5	57.4	0	0.0	0	0	6.5	13.9
May 16	59.7	38.5	49.1	0	0.1	0	0	3.1	17.0
May 17	72.6	36.3	54.5	0	0.0	0	0	5.0	22.0
May 18	73.8	41.2	57.5	0	0.0	0	0	5.9	27.9
May 19	82.0	53.5	67.7	0	0.0	0	0	8.1	36.0
May 20	58.8	38.9	48.8	0	0.0	0	0	2.9	39.0
May 21	80.8	44.5	62.6	0	0.4 (I)	0	0	6.4	45.4
May 22	86.8	55.3	71.0	0	0.0	0	0	7.4	52.8
May 23	87.8	63.2	75.5	0	0.0	0	0	7.4	60.2
May 24	84.1	48.7	66.4	0	0.5	0	0	7.0	67.2
May 25	79.2	43.3	61.2	0	0.0	0	0	6.3	73.6
May 26	67.9	47.8	57.8	0	0.1	0	0	6.8	80.4
May 27	72.3	45.1	58.7	0	0.0	0	0	6.4	86.8
May 28	81.6	43.8	62.7	0	0.0	0	0	6.3	93.1
May 29	89.4	60.3	74.8	0	0.4 (I)	0	0	7.2	100.3
May 30	86.0	62.7	74.4	0	0.0	0	0	7.7	108.0
May 31	81.8	59.6	70.7	11	0.1	1	1	8.7	116.6
Jun 1	81.5	56.2	68.9	13	0.4 (I)	2	3	8.5	125.1
Jun 2	81.1	60.1	70.6	0	0.3	0	0	3	133.9
Jun 3	67.9	58.0	63.0	25	0.1 + 0.4 (I)	3	6	9.0	142.9

Date	Air Temperature (F)			Hours >90% RH	Rainfall/Irrig. (In.)	Severity Values	Sum of Severity Values	P-Days	Sum of P-Days
	Max.	Min.	Avg.						
Jun 4	73.6	55.5	64.5	0	0.0	0	0	6	8.9
Jun 5	71.6	46.9	59.3	0	0.4 (I)	0	0	6	6.9
Jun 6	75.0	46.3	60.6	0	0.0	0	0	6	6.9
Jun 7	84.0	59.9	72.0	0	0.4 (I)	0	0	6	8.2
Jun 8	73.5	46.1	59.8	0	0.0	0	0	6	6.8
Jun 9	79.9	44.4	62.1	0	0.4 (I)	0	0	6	6.4
Jun 10	87.9	54.7	71.3	0	0.0	0	0	6	7.3
Jun 11	91.3	54.2	72.7	0	0.4 (I)	0	0	6	6.8
Jun 12	90.3	57.7	74.0	0	0.0	0	0	6	7.1
Jun 13	89.3	53.5	71.4	0	0.5 (I)	0	0	6	7.1
Jun 14	92.7	57.3	75.0	0	0.0	0	0	6	6.7
Jun 15	91.2	60.4	75.8	10	0.5 (I)	1	7	6.9	228.9
Jun 16	82.8	62.4	72.6	13	0.2	2	9	8.5	237.5
Jun 17	87.6	59.8	73.7	0	0.5 (I)	0	9	7.5	245.0
Jun 18	85.0	65.0	75.0	11	0.3	1	10	7.9	252.8
Jun 19	77.6	51.6	64.6	0	0.4 (I)	0	10	8.1	261.0
Jun 20	90.1	47.2	68.6	0	0.0	0	10	6.2	274.2
Jun 21	89.0	59.3	74.1	0	0.3	0	10	7.3	274.5
Jun 22	90.3	49.5	69.9	0	0.0	0	10	6.6	281.1
Jun 23	95.5	48.7	72.1	11	0.5 (I)	1	11	5.8	286.9
Jun 24	98.9	53.9	76.4	11	0.0	1	12	5.4	292.3
Jun 25	100.3	55.8	78.1	12	0.6 (I)	1	13	5.0	297.3
Jun 26	98.2	62.8	80.5	0	0.0	0	13	5.0	302.2
Jun 27	89.3	61.0	75.1	0	0.6 (I)	0	13	7.2	309.5
Jun 28	77.1	51.0	64.0	0	0.0	0	13	8.0	317.5
Jun 29	97.0	44.2	70.6	0	0.6 (I)	0	13	5.2	322.6
Jun 30	94.7	46.4	70.5	0	0.0	0	13	5.7	328.3
Jul 1	88.5	50.1	69.3	0	0.6 (I)	0	13	6.8	335.1
Jul 2	86.2	50.0	68.1	0	0.0	0	13	6.9	342.0
Jul 3	83.7	61.9	72.8	16	1.0 + 0.6 (I)	3	16	8.3	350.4
Jul 4	91.5	60.9	76.2	10	0.0	1	17	6.8	357.1
Jul 5	90.4	55.5	72.9	11	0.5 (I)	1	18	7.0	364.2
Jul 6	94.6	53.0	73.8	11	0.0	1	19	6.3	370.4
Jul 7	96.6	54.3	75.5	0	0.0	0	19	5.9	376.3
Jul 8	96.2	68.8	82.5	0	0.6 (I)	0	19	4.6	380.9
Jul 9	93.5	67.1	80.3	14	0.6 (I)	2	21	5.4	386.3
Jul 10	87.0	60.7	73.8	0	0.0	0	21	7.6	393.9
Jul 11	78.7	51.1	64.9	0	0.6 (I)	0	21	8.0	401.9
Jul 12	81.0	49.1	65.1	0	0.0	0	21	7.5	409.4
Jul 13	80.3	44.8	62.6	0	0.6 (I)	0	21	6.5	415.9

Appendix II – Hancock Weather Data 2007, continued

Date	Air Temperature (F)		Hours >90% RH	Rainfall/Irrig. (In.)	Severity Values	Sum of Severity Values	P-Days	Sum of P-Days	
	Max.	Min.							Avg.
Jul 14	78.2	49.9	64.0	0	0.0	0	21	7.8	423.7
Jul 15	84.9	48.2	66.6	0	0.6 (I)	0	21	6.8	430.5
Jul 16	88.5	56.4	72.5	10	0.1	1	22	7.3	437.8
Jul 17	90.8	60.3	75.5	11	0.6 (I)	1	23	7.0	444.8
Jul 18	96.0	61.8	78.9	11	0.0	1	24	5.6	450.4
Jul 19	80.6	50.5	65.6	0	0.6 (I)	0	24	7.8	458.1
Jul 20	85.8	44.7	65.2	0	0.0	0	24	6.0	464.1
Jul 21	91.2	50.4	70.8	0	0.6 (I)	0	24	6.6	470.7
Jul 22	88.0	52.6	70.3	0	0.0	0	24	7.1	477.8
Jul 23	92.1	56.5	74.3	10	0.6 (I)	1	25	6.8	484.5
Jul 24	93.0	65.3	79.1	0	0.0	0	25	5.9	490.5
Jul 25	95.9	64.5	80.2	0	0.6 (I)	0	25	5.2	495.7
Jul 26	91.4	65.2	78.3	12	1.3	1	26	6.4	502.0
Jul 27	87.3	61.1	74.2	0	0.0	0	26	7.5	509.6
Jul 28	88.6	55.6	72.1	0	0.0	0	26	7.3	516.8
Jul 29	95.4	54.8	75.1	10	0.5 (I)	1	27	6.2	523.0
Jul 30	95.9	56.2	76.0	10	0.0	1	28	6.0	529.0
Jul 31	95.6	58.6	77.1	0	0.6 (I)	0	28	6.0	535.0
Aug 1	94.6	60.1	77.4	0	0.0	0	28	6.1	541.2
Aug 2	91.2	58.4	74.8	0	0.6 (I)	0	28	6.9	548.1
Aug 3	90.8	50.3	70.5	0	0.0	0	28	6.6	554.7
Aug 4	74.7	52.3	63.5	0	0.6 (I)	0	28	8.3	563.0
Aug 5	74.6	58.8	66.7	25	0.2	3	31	9.3	572.3
Aug 6	89.4	65.3	77.4	11	0.5 (I)	1	32	6.8	579.2
Aug 7	92.0	69.6	80.8	0	0.0	0	32	5.3	584.5
Aug 8	92.6	60.2	76.4	0	0.5 (I)	0	32	6.6	591.1
Aug 9	89.0	65.3	77.1	11	0.0	1	33	6.9	598.0
Aug 10	99.0	61.7	80.4	13	0.6 (I)	2	35	5.0	603.0
Aug 11	88.2	62.2	75.2	13	0.5	2	37	7.3	610.3
Aug 12	91.6	60.2	75.9	0	0.4	0	37	6.8	617.1
Aug 13	87.5	58.0	72.8	0	0.0	0	37	7.5	624.6
Aug 14	82.1	63.3	72.7	0	0.4	0	37	8.7	633.3
Aug 15	76.4	60.6	68.5	11	0.0	1	38	9.4	642.7
Aug 16	83.7	56.7	70.2	0	0.5 (I)	0	38	8.1	650.8
Aug 17	76.4	47.8	62.1	0	0.0	0	38	7.3	658.2
Aug 18	60.1	50.9	55.5	75	1.1	22	60	6.5	664.7
Aug 19	61.5	55.7	58.6	0	1.7	0	60	7.9	672.6
Aug 20	63.4	58.8	61.1	0	1.2	0	60	8.7	681.3
Aug 21	79.4	60.5	70.0	13	0.0	2	62	9.1	690.4
Aug 22	83.2	64.7	73.9	15	0.2	2	64	8.4	698.8
Aug 23	79.2	63.8	71.5	22	0.1	5	69	9.2	708.0
Aug 24	71.4	63.0	67.2	12	1.1	1	70	9.7	717.8
Aug 25	79.4	53.1	66.2	0	0.0	0	70	8.3	726.1
Aug 26	81.4	49.2	65.3	0	0.0	0	70	7.4	733.5
Aug 27	78.8	59.8	69.3	0	0.6	0	70	9.1	742.6
Aug 28	92.8	65.8	79.3	16	0.4	3	73	5.9	748.5
Aug 29	78.6	54.9	66.8	0	0.0	0	73	8.6	757.2
Aug 30	81.8	47.9	64.8	0	0.0	0	73	7.1	764.3

Date	Air Temperature (F)		Hours >90% RH	Rainfall/Irrig. (In.)	Severity Values	Sum of Severity Values	P-Days	Sum of P-Days	
	Max.	Min.							Avg.
Aug 31	84.9	47.8	66.3	0	0.0	0	73	6.7	771.1
Sep 1	85.1	53.8	69.4	0	0.0	0	73	7.6	778.6
Sep 2	88.2	57.5	72.9	0	0.0	0	73	7.4	786.0
Sep 3	92.2	56.7	74.5	0	0.0	0	73	6.8	792.8
Sep 4	92.5	63.2	77.9	0	0.0	0	73	6.4	799.1
Sep 5	92.9	65.7	79.3	0	0.5 (I)	0	73	5.9	805.0
Sep 6	81.8	68.6	75.2	16	0.1	3	76	8.4	813.5
Sep 7	77.0	55.4	66.2	0	0.3	0	76	8.8	822.3
Sep 8	81.3	50.1	65.7	0	0.0	0	76	7.6	829.9
Sep 9	73.2	53.1	63.1	0	0.0	0	76	8.4	838.3
Sep 10	58.6	43.2	50.9	0	0.5 (I)	0	76	3.8	842.2
Sep 11	64.2	43.5	53.8	0	0.0	0	76	5.1	847.2
Sep 12	70.3	34.5	52.4	0	0.0	0	76	4.4	851.6
Sep 13	80.4	47.2	63.8	0	0.1	0	76	7.1	858.7
Sep 14	51.2	32.0	41.6	0	0.5	0	76	0.6	859.3
Sep 15	62.2	27.9	45.0	0	0.0	0	76	2.6	861.9
Sep 16	64.3	41.4	52.8	0	0.0	0	76	4.7	866.5
Sep 17	70.1	49.3	59.7	0	0.2	0	76	7.4	874.0
Sep 18	82.1	62.8	72.4	0	0.1	0	76	8.7	882.6
Sep 19	75.7	49.9	62.8	16	0.0	1	77	7.8	890.5
Sep 20	76.7	45.4	61.0	0	0.0	0	77	6.7	897.2
Sep 21	84.8	55.7	70.3	0	0.5	0	77	7.8	905.0
Sep 22	77.8	44.0	60.9	0	0.0	0	77	6.4	911.4
Sep 23	82.2	47.1	64.6	0	0.0	0	77	6.9	918.4
Sep 24	87.2	62.0	74.6	0	0.1	0	77	7.5	925.9
Sep 25	68.5	49.7	59.1	10	0.9	1	78	7.4	933.3
Sep 26	71.2	43.0	57.1	0	0.0	0	78	6.0	939.2
Sep 27	71.1	47.3	59.2	0	0.0	0	78	7.0	946.2
Sep 28	76.7	38.4	57.6	0	0.0	0	78	5.7	951.9
Sep 29	66.3	49.3	57.8	0	0.0	0	78	7.0	958.9
Sep 30	80.6	55.7	68.1	12	0.3	1	79	8.5	967.5

Inches Precip. includes daily rainfall and irrigation; (I) indicates irrigation.

Air temperature maximum and minimum are recorded for each day (midnight to midnight)

Hours RH > 90% - number of hours with the relative humidity equal to or greater than 90 %

Severity Values are used to denote the effect of temperature and relative humidity on the development of potato late blight

Sum of Sev. Values - A running total of severity value accumulation from emergence date.

P-Days - Physiological days are calculated from emergence and are used to predict the first seasonal increase in airborne inoculum of the early blight fungus, to initiate the first fungicide spray for early blight control, and to adjust the rates and intervals of fungicide applications for the remainder of the growing season.

Sum of P-Days - A running total of P-Day accumulation from emergence date.

