

Appendix III - Plover Weather Data 2007

Table 1. Data recorded by a weather station in the potato canopy of a grower field near Plover WI. Temperature scale is Fahrenheit. P-Day and Severity Values are calculated beginning at 50% emergence for the field (15 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				
May 15	68.2	46.5	57.4	0	0.0	0	0	6.5	6.5
May 16	57.9	44.4	51.2	0	0.1	0	0	3.9	10.4
May 17	70.0	34.7	52.3	0	0.0	0	0	4.3	14.7
May 18	73.5	36.0	54.7	0	0.0	0	0	5.1	19.8
May 19	82.9	53.5	68.2	0	0.0	0	0	8.0	27.8
May 20	58.3	39.2	48.7	0	0.0	0	0	2.9	30.6
May 21	78.7	44.4	61.5	0	0.3	0	0	6.5	37.1
May 22	87.0	50.9	69.0	0	0.0	0	0	7.0	44.1
May 23	86.5	61.1	73.8	0	0.2	0	0	7.6	51.8
May 24	81.8	47.6	64.7	0	0.4	0	0	7.1	58.8
May 25	72.6	43.5	58.0	0	0.0	0	0	6.2	65.0
May 26	66.4	44.5	55.4	0	0.1	0	0	5.6	70.6
May 27	70.6	44.6	57.6	0	0.0	0	0	6.1	76.8
May 28	75.6	42.4	59.0	0	0.4	0	0	6.2	83.0
May 29	87.1	58.5	72.8	0	0.0	0	0	7.5	90.5
May 30	89.1	59.1	74.1	0	0.0	0	0	7.3	97.8
May 31	79.5	57.6	68.5	10	0.0	1	1	8.9	106.7
Jun 1	82.4	54.6	68.5	0	0.0	0	0	8.2	114.8
Jun 2	79.3	60.6	70.0	13	0.5	2	3	9.1	123.9
Jun 3	65.3	54.9	60.1	28	0.3	4	7	8.2	132.2

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	74.2	55.9	65.1	0	0.0	0	0	7	8.9
Jun 5	69.3	46.3	57.8	0	0.0	0	0	7	6.5
Jun 6	76.2	43.9	60.0	0	0.2	0	0	7	6.4
Jun 7	82.9	59.1	71.0	0	0.0	0	0	7	8.4
Jun 8	73.8	46.1	59.9	0	0.0	0	0	7	6.8
Jun 9	83.3	41.6	62.4	0	0.4	0	0	7	6.0
Jun 10	85.9	52.6	69.3	0	0.0	0	0	7	7.3
Jun 11	85.2	52.2	68.7	0	0.4	0	0	7	7.4
Jun 12	86.6	53.9	70.2	0	0.4	0	0	7	7.3
Jun 13	88.8	51.7	70.3	0	0.0	0	0	7	6.9
Jun 14	92.5	56.0	74.3	11	0.0	1	8	6.7	210.9
Jun 15	87.6	57.4	72.5	15	0.4	2	10	7.5	218.4
Jun 16	84.1	60.9	72.5	13	0.6	2	12	8.2	226.6
Jun 17	85.2	58.2	71.7	0	0.0	0	12	7.9	234.5
Jun 18	83.2	63.5	73.3	14	1.0	2	14	8.4	242.9
Jun 19	74.9	50.9	62.9	0	0.0	0	14	8.0	250.9
Jun 20	82.7	46.7	64.7	0	0.2	0	14	6.8	257.7
Jun 21	82.2	57.2	69.7	0	0.0	0	14	8.4	266.2
Jun 22	81.7	49.9	65.8	0	0.0	0	14	7.5	273.7
Jun 23	83.5	47.9	65.7	11	0.5	1	15	7.0	280.7
Jun 24	85.9	53.2	69.5	14	0.4	2	17	7.3	288.1
Jun 25	85.4	56.9	71.2	13	0.0	2	19	7.8	295.8
Jun 26	89.5	61.2	75.4	0	0.4	0	19	7.1	303.0
Jun 27	83.6	60.3	72.0	0	0.0	0	19	8.3	311.3
Jun 28	73.1	51.2	62.2	0	0.0	0	19	8.1	319.4
Jun 29	82.4	44.4	63.4	0	0.4	0	19	6.3	325.7
Jun 30	85.3	48.3	66.8	0	0.4	0	19	6.8	332.4
Jul 1	81.0	50.1	65.5	0	0.0	0	19	7.7	340.1
Jul 2	80.1	51.0	65.6	19	0.5	4	23	7.9	348.0
Jul 3	81.3	59.0	70.1	18	1.1	3	26	8.7	356.7
Jul 4	89.0	60.4	74.7	12	0.0	1	27	7.3	364.0
Jul 5	85.9	55.4	70.6	14	0.1	2	29	7.5	371.5
Jul 6	89.0	52.3	70.6	15	0.4	2	31	7.0	378.5
Jul 7	91.2	52.8	72.0	0	0.0	0	31	6.8	385.3
Jul 8	91.8	65.3	78.5	11	0.4	1	32	6.3	391.5
Jul 9	89.4	64.3	76.9	12	0.3	1	33	6.9	398.5
Jul 10	84.0	58.0	71.0	0	0.3	0	33	8.1	406.6
Jul 11	76.2	49.1	62.6	0	0.3	0	33	7.7	414.2
Jul 12	75.5	48.4	61.9	0	0.1	0	33	7.5	421.7
Jul 13	74.9	45.8	60.4	0	0.0	0	33	6.8	428.5
Jul 14	76.4	50.9	63.7	0	0.1	0	33	8.0	436.6

Appendix III, Plover weather data 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 15	79.5	48.8	64.1	14	0.4	2	35	7.5	444.1
Jul 16	77.9	56.0	67.0	14	0.4	2	37	8.8	452.9
Jul 17	86.6	57.1	71.8	11	0.0	1	38	7.6	460.5
Jul 18	89.0	59.5	74.3	12	0.1	1	39	7.3	467.7
Jul 19	76.8	51.2	64.0	0	0.3	0	39	8.1	475.8
Jul 20	79.8	47.2	63.5	0	0.3	0	39	7.1	483.0
Jul 21	80.8	48.1	64.4	0	0.0	0	39	7.3	490.2
Jul 22	82.1	49.7	65.9	11	0.4	1	40	7.5	497.7
Jul 23	84.0	55.9	69.9	13	0.4	2	42	8.0	505.7
Jul 24	87.1	61.3	74.2	12	0.0	1	43	7.6	513.2
Jul 25	89.5	63.5	76.5	0	0.0	0	43	7.0	520.2
Jul 26	88.4	63.5	76.0	15	1.5	2	45	7.2	527.5
Jul 27	84.2	59.8	72.0	11	0.0	1	46	8.2	535.6
Jul 28	83.9	55.6	69.8	10	0.0	1	47	8.0	543.6
Jul 29	87.9	54.9	71.4	10	0.0	1	48	7.3	550.9
Jul 30	87.5	56.0	71.8	10	0.4	1	49	7.4	558.3
Jul 31	90.4	58.3	74.3	11	0.3	1	50	7.1	565.4
Aug 1	91.0	60.4	75.7	0	0.0	0	50	6.9	572.3
Aug 2	87.4	57.5	72.4	0	0.0	0	50	7.5	579.8
Aug 3	85.8	50.2	68.0	12	0.3	1	51	7.0	586.8
Aug 4	75.5	51.9	63.7	0	0.0	0	51	8.2	595.0
Aug 5	73.1	59.5	66.3	27	0.4	4	55	9.4	604.4
Aug 6	90.4	64.8	77.6	12	0.0	1	56	6.7	611.1
Aug 7	91.9	68.2	80.0	0	0.0	0	56	5.7	616.8
Aug 8	85.3	59.3	72.3	0	0.3	0	56	7.9	624.7
Aug 9	90.1	63.6	76.9	11	0.0	1	57	6.9	631.5
Aug 10	94.8	61.4	78.1	0	0.3	0	57	6.0	637.5
Aug 11	89.3	61.1	75.2	22	0.2	2	59	7.2	644.7
Aug 12	90.6	60.2	75.4	0	0.1	0	59	7.0	651.7
Aug 13	88.1	55.4	71.8	0	0.0	0	59	7.3	659.0
Aug 14	83.6	63.4	73.5	0	0.2	0	59	8.3	667.3
Aug 15	76.6	59.6	68.1	22	0.3	2	61	9.3	676.7
Aug 16	83.3	54.7	69.0	0	0.0	0	61	8.0	684.7
Aug 17	77.6	46.5	62.1	0	0.1	0	61	7.0	691.7
Aug 18	63.1	44.4	53.7	77	0.6	23	84	5.0	696.7
Aug 19	60.7	56.0	58.4	0	1.3	0	84	7.8	704.5
Aug 20	62.9	58.4	60.7	0	2.0	0	84	8.6	713.1
Aug 21	74.4	60.2	67.3	14	0.2	2	86	9.5	722.6
Aug 22	78.8	63.5	71.1	16	0.2	3	89	9.3	731.9
Aug 23	79.6	63.4	71.5	19	0.0	4	93	9.1	741.0
Aug 24	72.5	62.3	67.4	0	0.0	0	93	9.7	750.7
Aug 25	79.5	52.2	65.8	0	0.0	0	93	8.2	758.9
Aug 26	83.1	47.4	65.2	0	0.0	0	93	6.9	765.8
Aug 27	79.2	55.7	67.5	12	0.4	1	94	8.7	774.5
Aug 28	94.3	66.4	80.3	17	0.2	3	97	5.3	779.8
Aug 29	79.8	56.9	68.3	0	0.0	0	97	8.8	788.6
Aug 30	80.4	46.3	63.3	0	0.0	0	97	6.9	795.4
Aug 31	85.2	46.0	65.6	0	0.0	0	97	6.3	801.8

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.
Sep 1	87.1	53.5	70.3	0	0.0	0	97	7.3	809.0
Sep 2	88.8	55.7	72.2	10	0.0	1	98	7.2	816.3
Sep 3	91.6	56.6	74.1	0	0.0	0	98	6.9	823.1
Sep 4	93.8	57.5	75.6	0	0.0	0	98	6.5	829.6
Sep 5	96.3	62.8	79.5	0	0.0	0	98	5.4	835.0

Inches Precip. includes daily rainfall and 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.

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

