

**Nongrowing season (10/1/2015-4/30/2016)**

**University of MN Southwest Research and Outreach Center, Lamberton**  
<http://swroc.cfans.umn.edu>; 507-752-7372 (Phone)

mo	day	Tair Max F	Tair Low F	HDD	Cum HDD	Precip (in.)	Snow (in.)	Precip 2016	Soil Temperatures						Solar	Wind Run
									2" Max	2" Min	4" Max	4" Min	8" Max	8" Min		
1	1	22	5	51	2455	0.00	0.00	0.00	32	31	33	33	32	31	140	224
1	2	28	8	47	2503	0.00	0.00	0.00	32	32	33	33	32	31	164	164
1	3	32	10	44	2547	0.00	0.00	0.00	32	32	33	33	32	31	189	157
1	4	26	-1	53	2600	0.00	0.00	0.00	32	32	33	33	32	31	102	111
1	5	23	-2	54	2654	0.00	0.00	0.00	32	32	33	33	32	30	192	264
1	6	29	17	42	2696	0.00	0.00	0.00	32	32	33	33	32	30	159	253
1	7	34	26	35	2731	0.03	0.20	0.03	32	32	33	33	32	31	100	103
1	8	36	31	32	2763	0.08	1.10	0.11	33	32	33	33	32	31	82	90
1	9	31	0	49	2812	0.08	2.10	0.19	33	32	34	33	32	28	98	199
1	10	0	-12	71	2883	0.00	0.00	0.19	33	32	34	33	32	30	169	160
1	11	9	-15	68	2952	0.00	0.00	0.19	33	33	34	34	32	31	201	69
1	12	19	-7	59	3010	0.00	0.20	0.19	33	32	34	34	32	30	119	179
1	13	12	-8	63	3073	0.00	0.00	0.19	33	33	34	34	32	31	199	147
1	14	33	6	45	3118	0.00	0.00	0.19	33	32	34	34	32	31	184	74
1	15	31	6	47	3165	0.00	0.00	0.19	33	33	34	34	32	31	195	130
1	16	9	-1	61	3226	0.00	0.00	0.19	33	32	34	34	32	28	202	180
1	17	3	-16	72	3298	0.00	0.00	0.19	33	32	34	33	32	31	154	132
1	18	-1	-16	74	3372	0.00	0.00	0.19	33	32	34	33	32	31	211	81
1	19	8	-4	63	3435	0.00	0.00	0.19	32	32	33	33	32	31	144	32
1	20	17	-1	57	3492	0.00	0.00	0.19	32	32	33	33	32	31	117	159
1	21	26	17	44	3536	0.00	0.00	0.19	32	32	33	33	32	31	101	159
1	22	26	8	48	3584	0.08	1.60	0.27	32	32	33	33	32	31	90	92
1	23	16	8	53	3637	0.00	0.00	0.27	32	32	33	33	32	31	102	130
1	24	26	15	45	3681	0.00	0.00	0.27	32	32	33	33	32	31	132	274
1	25	33	20	39	3720	0.00	0.00	0.27	33	32	33	33	32	31	104	101
1	26	27	22	41	3761	0.03	0.20	0.30	33	32	33	33	32	31	97	165
1	27	28	9	47	3807	0.00	0.00	0.30	33	32	33	33	32	31	125	119
1	28	41	19	35	3843	0.00	0.00	0.30	33	32	33	33	32	31	181	305
1	29	35	19	38	3880	0.00	0.00	0.30	33	32	33	33	32	31	185	128
1	30	38	26	33	3914	0.00	0.00	0.30	33	32	33	33	32	31	207	199
1	31	40	32	29	3943	0.00	0.00	0.30	33	32	33	33	32	31	120	125
<b>Monthly Total</b>				<b>1539</b>		<b>0.30</b>	<b>5.40</b>								<b>4565</b>	<b>4704</b>
<b>Monthly Ave.</b>		<b>24</b>	<b>7</b>						<b>32</b>	<b>32</b>	<b>33</b>	<b>33</b>	<b>32</b>	<b>31</b>		
<b>Historic Ave.</b>		<b>23</b>	<b>3</b>		<b>4530</b>	<b>0.60</b>			<b>29</b>	<b>26</b>	<b>30</b>	<b>28</b>	<b>29</b>	<b>28</b>		

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mo	day	Tair Max F	Tair Low F	HDD	Cum HDD	Precip (in.)	Snow (in.)	Precip 2016	Soil Temperatures						Solar	Wind Run
									2" Max	2" Min	4" Max	4" Min	8" Max	8" Min		
2	1	42	26	31	3974	0.00	0.00	0.30	33	32	33	33	31	31	207	104
2	2	35	26	35	4009	0.00	0.00	0.30	33	32	33	33	32	31	168	139
2	3	27	16	43	4052	0.20	8.80	0.50	32	32	33	33	32	28	64	399
2	4	23	7	50	4102	0.00	0.00	0.50	33	32	33	33	32	31	267	181
2	5	26	1	52	4153	0.00	0.00	0.50	32	32	33	33	32	32	221	106
2	6	28	12	45	4199	0.02	0.20	0.52	32	32	33	33	32	32	153	222
2	7	38	21	35	4234	0.00	0.00	0.52	32	32	33	33	32	32	215	345
2	8	38	13	40	4274	0.07	1.50	0.59	32	32	33	33	32	31	183	276
2	9	17	4	54	4328	0.00	0.00	0.59	32	32	33	33	32	30	189	243
2	10	17	4	55	4383	0.01	0.20	0.60	32	32	33	33	32	31	234	162
2	11	12	-7	63	4445	0.01	0.30	0.61	32	32	33	33	32	30	174	101
2	12	16	-7	60	4506	0.00	0.10	0.61	32	32	33	33	32	31	187	133
2	13	8	-7	64	4570	0.00	0.00	0.61	32	32	33	33	32	30	287	133
2	14	14	-4	60	4630	0.30	0.30	0.91	32	32	33	33	32	32	159	225
2	15	26	14	45	4675	0.00	0.00	0.91	32	32	33	33	32	31	165	158
2	16	34	24	36	4711	0.02	0.20	0.93	32	32	33	33	32	31	191	148
2	17	31	21	39	4750	0.00	0.00	0.93	32	32	33	33	32	30	119	85
2	18	31	23	38	4788	0.00	0.00	0.93	32	32	33	33	32	30	115	198
2	19	43	30	29	4817	0.00	0.00	0.93	32	32	33	33	32	31	173	230
2	20	49	34	23	4840	0.04	0.00	0.97	32	32	33	32	32	29	224	281
2	21	40	31	30	4870	0.00	0.00	0.97	32	32	33	33	31	31	154	105
2	22	36	25	34	4904	0.00	0.00	0.97	32	32	33	33	31	31	125	81
2	23	34	25	35	4940	0.00	0.00	0.97	32	32	33	33	31	31	98	96
2	24	37	26	35	4975	0.00	0.00	0.97	32	32	33	33	31	30	67	137
2	25	34	26	33	5009	0.00	0.00	0.97	32	32	33	33	31	30	130	125
2	26	30	20	35	5044	0.00	0.00	0.97	32	32	33	33	32	30	126	128
2	27	45	23	40	5084	0.00	0.00	0.97	32	32	33	33	32	31	348	230
2	28	58	34	31	5115	0.00	0.00	0.97	32	31	33	33	32	30	352	216
2	29	40	25	19	5135	0.01	0.00	0.98	36	31	36	33	33	31	116	234
<b>Monthly Total</b>				<b>1192</b>		<b>0.68</b>	<b>11.60</b>								<b>5210</b>	<b>5221</b>
<b>Monthly Ave.</b>		<b>31</b>	<b>17</b>						<b>32</b>	<b>32</b>	<b>33</b>	<b>33</b>	<b>32</b>	<b>31</b>		
<b>Historic Ave.</b>		<b>28</b>	<b>8</b>		<b>5890</b>	<b>0.69</b>			<b>29</b>	<b>27</b>	<b>30</b>	<b>29</b>	<b>29</b>	<b>28</b>		

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mo	day	Tair Max F	Tair Low F	HDD	Cum HDD	Precip (in.)	Snow (in.)	Precip 2016	Soil Temperatures						Solar	Wind Run
									2" Max	2" Min	4" Max	4" Min	8" Max	8" Min		
3	1	25	13	46	5180	0.09	3.00	1.07	34	32	34	33	32	30	271	242
3	2	17	2	56	5236	0.00	0.00	1.07	32	32	33	33	32	30	370	115
3	3	30	4	48	5283	0.00	0.00	1.07	32	32	33	33	31	30	301	151
3	4	33	22	38	5321	0.00	0.00	1.07	32	32	33	33	31	30	202	83
3	5	41	27	31	5352	0.00	0.00	1.07	35	32	35	33	32	30	138	182
3	6	40	27	32	5383	0.00	0.00	1.07	43	32	40	33	36	30	282	250
3	7	65	39	13	5396	0.00	0.00	1.07	50	34	46	34	41	32	336	254
3	8	67	47	8	5405	0.00	0.00	1.07	55	41	52	41	45	38	299	269
3	9	60	33	19	5423	0.00	0.00	1.07	52	39	50	41	45	39	216	258
3	10	41	28	19	5442	0.00	0.00	1.07	45	36	45	38	41	37	127	82
3	11	55	31	31	5473	0.00	0.00	1.07	55	36	50	38	44	36	351	52
3	12	71	36	22	5495	0.00	0.00	1.07	56	35	52	37	46	37	411	303
3	13	69	45	11	5506	0.16	0.00	1.23	60	42	56	43	49	41	398	199
3	14	54	47	8	5514	0.00	0.00	1.23	52	47	51	48	47	45	93	105
3	15	60	50	14	5529	0.11	0.00	1.34	56	48	54	49	48	46	116	110
3	16	53	36	10	5539	0.00	0.00	1.34	52	40	51	43	47	42	154	130
3	17	50	32	20	5559	0.00	0.00	1.34	47	36	47	39	43	38	303	235
3	18	39	26	24	5583	0.01	0.00	1.35	43	34	43	36	39	36	202	199
3	19	37	25	32	5615	0.05	0.40	1.40	41	34	41	36	37	35	150	127
3	20	35	24	34	5649	0.00	0.00	1.40	39	34	39	36	36	35	164	140
3	21	42	25	36	5685	0.00	0.00	1.40	47	33	45	35	39	33	412	96
3	22	64	29	32	5716	0.00	0.00	1.40	53	32	49	35	43	34	427	150
3	23	57	31	19	5735	0.00	0.00	1.40	54	39	51	40	45	38	363	290
3	24	32	22	21	5756	0.31	8.80	1.71	39	34	41	36	40	33	55	295
3	25	43	18	38	5794	0.00	0.00	1.71	35	33	36	35	36	33	516	139
3	26	43	27	34	5828	0.02	0.00	1.73	34	33	35	34	34	32	319	180
3	27	39	32	30	5858	0.62	0.00	2.35	33	31	34	33	33	31	79	134
3	28	44	27	30	5888	0.00	0.00	2.35	33	31	35	34	32	31	496	154
3	29	62	29	29	5917	0.00	0.00	2.35	51	31	48	34	40	32	511	200
3	30	62	40	19	5936	0.61	0.00	2.96	48	35	46	39	42	36	276	301
3	31	49	39	14	5950	0.02	0.00	2.98	48	41	47	43	43	40	101	151
<b>Monthly Total</b>				<b>815</b>		<b>2.00</b>	<b>12.20</b>								<b>8438</b>	<b>5573</b>
<b>Monthly Ave.</b>		<b>48</b>	<b>29</b>						<b>45</b>	<b>36</b>	<b>44</b>	<b>37</b>	<b>40</b>	<b>35</b>		
<b>Historic Ave.</b>		<b>40</b>	<b>21</b>		<b>6967</b>	<b>1.45</b>			<b>37</b>	<b>31</b>	<b>36</b>	<b>33</b>	<b>33</b>	<b>32</b>		

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mo	day	Tair Max F	Tair Low F	HDD	Cum HDD	Precip (in.)	Snow (in.)	Precip 2016	Soil Temperatures				Solar	Wind Run		
									2" Max	2" Min	4" Max	4" Min			8" Max	8" Min
4	1	51	30	21	5971	0.02	0.00	3.00	51	37	50	40	44	39	287	151
4	2	40	26	25	5996	0.00	0.00	3.00	48	34	47	37	42	36	520	255
4	3	46	25	32	6028	0.00	0.00	3.00	45	33	44	36	40	34	508	251
4	4	73	24	29	6057	0.00	0.00	3.00	56	36	52	38	45	36	464	235
4	5	47	24	17	6073	0.00	0.00	3.00	53	35	50	37	44	37	529	105
4	6	54	34	29	6103	0.00	0.00	3.00	48	36	46	38	42	37	232	221
4	7	46	35	21	6124	0.02	0.00	3.02	44	38	44	39	41	38	141	171
4	8	42	30	25	6149	0.08	0.00	3.10	43	35	43	37	40	36	135	165
4	9	34	15	29	6178	0.00	0.00	3.10	46	33	44	35	40	35	554	171
4	10	50	20	40	6218	0.00	0.00	3.10	48	32	45	34	40	33	558	228
4	11	61	28	30	6248	0.00	0.00	3.10	54	35	50	39	44	37	368	189
4	12	44	15	21	6268	0.00	0.00	3.10	51	34	49	37	43	36	551	142
4	13	65	19	36	6304	0.00	0.00	3.10	49	33	47	36	42	35	288	255
4	14	78	34	23	6327	0.00	0.00	3.10	65	41	59	42	51	40	565	169
4	15	78	51	9	6336	0.00	0.00	3.10	64	48	60	49	53	45	456	296
4	16	77	51	0	6336	0.00	0.00	3.10	64	49	61	50	54	47	490	196
4	17	77	56	1	6337	0.00	0.00	3.10	65	53	62	53	55	49	366	166
4	18	79	51	0	6337	0.00	0.00	3.10	67	55	63	56	56	51	357	162
4	19	67	50	0	6337	0.45	0.00	3.55	61	54	59	55	54	51	134	85
4	20	59	49	6	6344	0.04	0.00	3.59	59	53	57	54	52	51	102	59
4	21	60	52	11	6355	0.92	0.00	4.51	58	53	56	54	52	50	121	200
4	22	64	42	9	6363	0.04	0.00	4.55	65	50	62	51	55	50	365	150
4	23	64	42	12	6375	0.00	0.00	4.55	69	48	64	50	58	48	560	104
4	24	76	43	12	6387	0.00	0.00	4.55	70	48	65	50	58	48	557	229
4	25	75	54	5	6393	0.87	0.00	5.42	69	55	64	56	57	52	264	185
4	26	66	44	0	6393	0.00	0.00	5.42	67	53	64	55	57	52	339	113
4	27	48	42	10	6403	0.00	0.00	5.42	54	47	55	49	52	47	98	290
4	28	42	37	20	6423	0.92	0.00	6.34	47	43	49	44	48	43	78	366
4	29	41	33	25	6448	0.00	0.00	6.34	46	41	46	43	44	42	95	185
4	30	55	36	28	6476	0.00	0.00	6.34	56	41	53	43	48	42	331	159
<b>Monthly Total</b>				<b>525</b>		<b>3.36</b>	<b>0.00</b>								<b>10412</b>	<b>5656</b>
<b>Monthly Ave.</b>		<b>59</b>	<b>36</b>						<b>56</b>	<b>43</b>	<b>54</b>	<b>45</b>	<b>48</b>	<b>43</b>		
<b>Historic Ave.</b>		<b>57</b>	<b>34</b>		<b>7565</b>		<b>2.78</b>		<b>55</b>	<b>40</b>	<b>49</b>	<b>41</b>	<b>45</b>	<b>41</b>		

University of Minnesota  
 SW Research and Outreach Center  
 23669 130th Street; Lamberton, MN 56152

Growing Season Monthly Report  
 May 1 - September 30, 2016

mo	day	Tair Max	Tair Low	GDD	CumGDD	Historic Cum GDD	Daily Precip (in.)	Pan Evap (in.)	Soil Temperatures						Solar	Wind Run	
									2" Max	2" Min	4" Max	4" Min	8" Max	8" Min			
5	1	50	39	0	0	7	0.20	0.02	47	42	47	45	45	43	95	252	
5	2	60	34	5	5	14	0.00	0.21	61	43	57	45	51	43	544	148	
5	3	70	35	10	15	22	0.00	0.20	68	42	63	45	55	44	638	74	
5	4	73	40	12	27	31	0.00	0.27	66	46	62	49	55	47	566	171	
5	5	69	38	10	36	40	0.00	0.28	67	46	62	48	56	47	661	125	
5	6	80	40	15	51	50	0.00	0.45	75	47	68	49	59	48	637	172	
5	7	91	52	19	71	59	0.00	0.36	78	54	71	55	62	52	610	275	
5	8	70	38	10	81	68	0.00	0.27	73	51	67	54	61	53	503	140	
5	9	75	43	12	93	77	0.02	0.30	77	51	70	53	62	52	625	195	
5	10	58	53	6	99	87	0.57	0.01	59	55	59	56	55	53	76	319	
5	11	64	53	9	107	97	0.03	0.01	62	55	60	55	56	53	153	198	
5	12	67	46	9	116	106	0.47	0.07	66	50	63	52	57	51	214	106	
5	13	58	40	4	120	115	0.00	0.07	60	47	58	49	54	49	292	111	
5	14	46	32	0	120	125	0.06	0.01	52	39	51	43	49	43	164	153	
5	15	56	30	3	123	136	0.00	0.14	60	39	56	42	51	42	617	133	
5	16	67	34	8	131	147	0.00	0.21	69	41	63	45	55	44	599	169	
5	17	70	40	10	141	160	0.00	0.26	73	47	67	50	59	48	602	112	
5	18	67	37	9	150	172	0.00	0.31	76	49	70	53	61	50	698	121	
5	19	70	41	10	160	185	0.00	0.28	80	49	73	53	63	51	709	92	
5	20	74	48	12	172	198	0.00	0.35	76	54	71	57	63	53	523	185	
5	21	72	48	11	183	211	0.00	0.19	75	55	70	57	62	54	508	116	
5	22	79	46	14	197	224	0.00	0.28	84	56	77	58	68	55	697	120	
5	23	85	55	20	217	237	0.01	0.35	81	57	75	60	67	56	594	280	
5	24	79	57	18	235	250	0.27	0.06	79	61	74	62	66	59	332	198	
5	25	86	61	23	259	262	0.46	0.44	87	61	80	62	70	58	639	121	
5	26	79	58	18	277	274	0.06	0.18	80	63	76	64	68	61	544	181	
5	27	80	58	19	296	286	0.00	0.22	81	62	76	63	68	60	555	90	
5	28	77	60	18	314	300	1.11	0.39	81	63	75	64	67	61	385	111	
5	29	64	57	11	325	315	1.00	0.26	69	60	67	61	62	59	147	112	
5	30	78	55	17	341	330	0.00	0.27	79	60	75	60	67	59	672	127	
5	31	84	60	22	364	345	1.30	1.09	79	60	75	61	68	59	612	168	
<b>Monthly Total</b>							<b>5.56</b>	<b>7.81</b>									
<b>Monthly Ave.</b>		<b>71</b>	<b>46</b>							<b>72</b>	<b>52</b>	<b>67</b>	<b>54</b>	<b>60</b>	<b>52</b>		
<b>Historic Ave.</b>		<b>70</b>	<b>46</b>					<b>3.47</b>		<b>71</b>	<b>53</b>	<b>63</b>	<b>53</b>	<b>68</b>	<b>64</b>		

University of Minnesota  
 SW Research and Outreach Center  
 23669 130th Street; Lamberton, MN 56152

Growing Season Monthly Report  
 May 1 - September 30, 2016

mo	day	Tair Max	Tair Low	GDD	CumGDD	Historic Cum GDD	Daily Precip (in.)	Pan Evap (in.)	Soil Temperatures						Solar	Wind Run
									2" Max	2" Min	4" Max	4" Min	8" Max	8" Min		
6	1	73	54	13	377	359	0.00	0.26	79	58	76	61	68	60	577	213
6	2	67	49	9	386	373	0.00	0.24							579	159
6	3	77	55	16	401	388	0.00	0.28							672	104
6	4	70	52	11	412	404	0.56	0.15	68	57	67	58	66	59	164	153
6	5	69	54	11	424	421	0.00	0.09	67	56	66	58	65	59	324	139
6	6	82	56	19	443	438	0.00	0.38	80	58	75	58	72	59	661	153
6	7	70	50	10	453	456	0.00	0.26	76	56	73	59	70	60	531	137
6	8	73	48	12	464	474	0.00	0.24	88	58	81	59	76	60	728	55
6	9	78	63	21	485	490	0.09	0.13	77	62	73	63	70	63	433	185
6	10	94	68	27	512	506	0.00	0.35	92	64	86	64	81	64	681	228
6	11	95	69	27	539	524	0.00	0.30	93	73	88	72	83	72	531	119
6	12	92	71	28	567	542	0.00	0.43	97	74	92	74	87	73	649	225
6	13	97	68	27	595	560	0.13	0.31	98	75	93	76	88	76	631	224
6	14	78	65	22	616	579	0.00	0.15	82	70	80	71	78	71	334	154
6	15	77	64	20	637	597	0.81	0.27	77	66	76	67	74	68	281	158
6	16	78	56	17	654	613	0.00	0.26	85	65	81	67	78	68	674	101
6	17	82	63	23	677	632	0.00	0.27	90	66	86	67	82	67	695	199
6	18	90	64	25	702	650	0.75	0.55	95	69	90	70	85	70	553	222
6	19	85	68	26	728	669	0.00	0.18	87	69	84	70	81	70	587	118
6	20	90	62	24	752	688	0.08	0.33	90	69	87	71	84	72	650	280
6	21	80	53	16	768	707	0.00	0.28	88	66	85	68	81	69	711	105
6	22	84	64	24	792	727	0.01	0.28	93	66	88	68	82	69	690	122
6	23	87	59	22	815	746	0.00	0.23	92	70	87	71	82	72	570	126
6	24	78	59	18	833	766	0.00	0.25	90	69	86	70	81	71	667	101
6	25	86	65	25	858	786	0.00	0.27	92	69	87	70	82	71	687	205
6	26	88	55	21	879	807	0.00	0.27	86	68	83	69	79	71	424	192
6	27	87	59	22	901	828	0.00	0.38	89	68	85	69	80	71	720	187
6	28	76	53	15	916	849	0.00	0.26	88	68	85	69	81	71	673	103
6	29	77	57	27	943	870	0.00	0.24	91	68	87	69	82	70	665	58
6	30	82	63	23	965	890	0.16	0.17	92	70	88	71	84	71	646	90
<b>Monthly Total</b>							<b>2.59</b>	<b>8.06</b>								
<b>Monthly Ave.</b>		<b>81</b>	<b>60</b>						<b>86</b>	<b>66</b>	<b>83</b>	<b>67</b>	<b>79</b>	<b>68</b>		
<b>Historic Ave.</b>		<b>80</b>	<b>57</b>				<b>4.10</b>		<b>82</b>	<b>63</b>	<b>74</b>	<b>64</b>	<b>68</b>	<b>64</b>		

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 SW Research and Outreach Center  
 23669 130th Street; Lamberton, MN 56152

Growing Season Monthly Report  
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mo	day	Tair Max	Tair Low	GDD	CumGDD	Historic Cum GDD	Daily Precip (in.)	Pan Evap (in.)	Soil Temperatures						Solar	Wind Run
									2" Max	2" Min	4" Max	4" Min	8" Max	8" Min		
7	1	78	50	14	980	911	0.02	0.09	87	64	84	67	81	69	619	129
7	2	73	54	14	994	931	0.00	0.22	90	65	85	67	81	68	622	57
7	3	79	53	16	1009	952	0.00	0.26	90	66	85	69	81	70	575	97
7	4	78	58	18	1027	973	0.00	0.31	93	67	87	69	82	70	698	116
7	5	79	66	22	1050	995	0.00	0.27	89	70	85	71	81	72	553	174
7	6	91	63	25	1074	1017	0.19	0.11	94	71	89	72	84	73	541	160
7	7	82	64	23	1097	1039	1.07	0.45	93	69	88	71	84	72	517	100
7	8	77	62	20	1117	1061	0.05	0.06	81	64	78	67	76	68	348	104
7	9	78	56	17	1134	1081	0.00	0.26	88	65	84	67	80	68	696	104
7	10	83	64	23	1157	1103	0.92	0.48	95	66	90	68	84	69	660	159
7	11	81	65	23	1180	1125	0.21	0.14	82	69	79	70	77	71	336	197
7	12	87	59	22	1202	1147	0.02	0.15	83	67	81	69	79	71	327	162
7	13	83	66	25	1227	1168	0.00	0.34	90	67	86	69	82	70	682	256
7	14	82	59	20	1247	1189	0.00	0.32	95	68	90	71	85	72	680	138
7	15	73	52	12	1259	1211	0.00	0.02	86	63	81	66	78	68	472	139
7	16	75	54	15	1274	1232	0.00	0.18	91	64	87	66	82	67	628	70
7	17	81	63	22	1296	1256	4.37	1.20	93	67	88	69	83	70	644	193
7	18	82	59	21	1317	1279	0.00	0.25	90	67	82	69	82	70	677	126
7	19	84	67	26	1342	1301	0.00	0.32	90	68	85	69	82	70	656	83
7	20	83	71	27	1369	1323	0.00	0.20	85	73	83	73	80	73	512	171
7	21	91	76	31	1400	1344	0.00	0.28	90	73	87	74	84	74	586	229
7	22	91	72	29	1429	1366	0.00	0.22	96	77	92	77	89	77	555	76
7	23	92	74	30	1459	1387	0.00	0.24	100	77	95	78	91	79	561	115
7	24	87	67	27	1486	1408	0.07	0.07	92	74	89	76	86	78	404	132
7	25	80	60	20	1506	1430	0.00	0.20	92	69	86	72	84	74	508	96
7	26	86	65	25	1531	1451	0.00	0.25	96	70	90	72	86	74	655	91
7	27	87	69	28	1559	1472	0.00	0.24	96	73	90	75	86	76	588	107
7	28	81	60	21	1580	1492	0.00	0.20	92	72	87	75	85	76	499	97
7	29	76	56	16	1596	1512	0.00	0.17	87	69	83	71	82	73	451	94
7	30	78	52	15	1611	1532	0.00	0.19	89	67	83	70	81	72	630	69
7	31	79	61	20	1631	1553	0.00	0.22	90	67	83	70	81	71	656	51
<b>Monthly Total</b>							<b>6.92</b>	<b>7.91</b>								
<b>Monthly Ave.</b>		<b>82</b>	<b>62</b>						<b>90</b>	<b>69</b>	<b>86</b>	<b>71</b>	<b>83</b>	<b>72</b>		
<b>Historic Ave.</b>		<b>84</b>	<b>61</b>				<b>3.58</b>		<b>90</b>	<b>69</b>	<b>82</b>	<b>71</b>	<b>76</b>	<b>71</b>		

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mo	day	Tair Max	Tair Low	GDD	CumGDD	Historic Cum GDD	Daily Precip (in.)	Pan Evap (in.)	Soil Temperatures						Solar	Wind Run	
									2" Max	2" Min	4" Max	4" Min	8" Max	8" Min			
8	1	83	67	25	1656	1574	0.00	0.23	88	71	83	73	81	74	544	160	
8	2	84	66	25	1681	1595	0.00	0.15	84	73	80	74	79	75	325	110	
8	3	85	66	26	1706	1616	0.00	0.17	86	73	82	74	81	75	471	40	
8	4	86	69	28	1734	1636	0.07	0.24	90	74	84	75	83	75	542	165	
8	5	82	57	19	1753	1655	0.12	0.11	85	67	82	70	81	71	470	112	
8	6	77	55	16	1769	1675	0.00	0.25	89	67	84	69	82	71	645	95	
8	7	78	57	18	1787	1695	0.00	0.22	91	67	85	70	83	71	599	68	
8	8	81	56	18	1805	1716	0.00	0.22	94	70	88	72	85	73	592	54	
8	9	81	63	22	1827	1736	0.00	0.26	91	70	86	72	83	73	572	150	
8	10	89	70	28	1855	1755	0.08	0.16	92	74	88	75	85	75	522	143	
8	11	91	67	27	1881	1773	0.75	0.46	96	73	91	75	88	76	510	185	
8	12	82	66	24	1906	1793	0.02	0.11	87	72	84	74	82	75	369	67	
8	13	79	60	19	1925	1812	0.16	0.13	83	66	80	68	79	70	301	84	
8	14	81	58	20	1944	1830	0.00	0.18	86	65	82	68	80	69	517	81	
8	15	80	59	20	1964	1849	0.00	0.20	89	65	85	68	83	69	586	51	
8	16	80	63	21	1985	1869	0.03	0.07	85	67	81	70	80	71	361	81	
8	17	86	61	23	2008	1888	0.00	0.18	93	69	88	71	85	72	496	89	
8	18	83	62	23	2031	1906	0.00	0.17	92	70	88	72	85	73	531	45	
8	19	84	65	24	2055	1925	1.40	0.55	85	68	82	70	79	71	296	115	
8	20	74	58	16	2071	1943	0.19	0.14	79	64	77	66	76	68	279	99	
8	21	70	50	10	2081	1961	0.20	0.15	76	57	74	60	73	62	390	110	
8	22	76	55	16	2097	1981	0.00	0.18	81	58	77	60	75	62	550	134	
8	23	84	65	24	2121	1999	0.00	0.33	83	63	79	65	77	66	552	332	
8	24	79	61	20	2140	2018	1.33	0.34	79	66	76	68	75	68		124	
8	25	75	57	16	2156	2037	0.00	0.16	76	62	75	64	73	65	369	93	
8	26	73	49	12	2168	2056	0.00	0.17	79	59	76	62	74	63	488	91	
8	27	71	53	12	2180	2075	0.78	0.20	78	59	75	62	73	63	406	66	
8	28	74	59	16	2196	2094	0.11	0.06	76	62	74	64	72	65	285	74	
8	29	86	62	24	2220	2111	0.00	0.19	85	63	81	64	78	65	503	143	
8	30	86	65	26	2246	2129	0.06	0.11	84	67	80	69	78	69	385	122	
8	31	78	54	16	2262	2146	0.00	0.16	85	63	82	66	79	68		57	
<b>Monthly Total</b>							<b>5.30</b>	<b>6.25</b>									
<b>Monthly Ave.</b>		<b>81</b>	<b>60</b>							<b>85</b>	<b>67</b>	<b>81</b>	<b>69</b>	<b>80</b>	<b>70</b>		
<b>Historic Ave.</b>		<b>81</b>	<b>57</b>					<b>3.14</b>		<b>87</b>	<b>67</b>	<b>79</b>	<b>69</b>	<b>74</b>	<b>69</b>		



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mo	day	Tair Max	Tair Low	GDD	CumGDD	Historic Cum GDD	Daily Precip (in.)	Pan Evap (in.)	Soil Temperatures						Solar	Wind Run
									2" Max	2" Min	4" Max	4" Min	8" Max	8" Min		
9	1	78	53	16	2278	2164	0.00	0.15	87	63	83	66	80	67	517	39
9	2	77	52	15	2292	2181	0.00	0.22	87	62	83	65	80	67	515	84
9	3	76	56	16	2308	2199	0.00	0.22	83	62	79	65	77	67	483	142
9	4	77	60	18	2327	2215	0.14	0.10	83	64	80	66	77	67	444	195
9	5	79	63	21	2348	2232	0.66	0.37	78	66	76	68	74	68	299	209
9	6	78	65	21	2369	2248	0.35	0.11	75	66	73	68	72	68	164	86
9	7	74	65	19	2388	2265	0.84	0.16	76	68	74	69	73	69	194	71
9	8	79	55	17	2405	2280	0.00	0.12	81	62	78	65	76	66		96
9	9	77	57	17	2422	2295	0.21	0.18	81	62	78	64	75	66	444	59
9	10	73	51	12	2434	2310	0.02	0.11	74	58	73	60	72	62		98
9	11	72	53	12	2446	2325	0.00	0.16	74	58	72	60	71	61	457	117
9	12	79	56	18	2463	2339	0.00	0.29	75	58	74	60	71	61		290
9	13	74	47	12	2475	2352	0.00	0.16	73	57	71	59	69	61	231	144
9	14	59	42	5	2480	2364	0.00	0.05	65	53	64	56	64	57	208	77
9	15	70	45	10	2490	2375	0.01	0.13	75	53	73	55	70	57	468	81
9	16	66	57	12	2502	2387	0.73	0.15	65	61	65	62	65	62		120
9	17	76	55	15	2517	2399	0.00	0.14	73	60	71	61	69	62		139
9	18	74	54	14	2530	2412	0.00	0.12	73	58	71	60	69	61	342	118
9	19	82	59	20	2551	2424	0.00	0.19	74	58	72	60	70	61		180
9	20	81	53	17	2568	2436	0.00	0.15	80	60	78	62	75	63	395	54
9	21	84	57	21	2589	2446	0.02	0.10	75	60	73	62	71	63	270	92
9	22	82	61	21	2610	2456	1.08	0.39	79	64	77	65	74	65	292	125
9	23	72	60	16	2626	2465	0.00	0.07	72	63	71	64	70	65	140	125
9	24	70	60	15	2641	2474	0.13	0.1	67	63	67	64	66	65	73	219
9	25	84	53	19	2660	2485	1.07	0.49	76	63	74	65	72	65	260	171
9	26	65	47	7	2668	2495	0.00	0.18	64	50	65	53	65	55		210
9	27	68	44	9	2676	2506	0.00	0.25	63	49	63	51	62	53		163
9	28	70	44	10	2686	2516	0.00	0.22	64	49	63	51	61	52	420	150
9	29	66	39	8	2694	2525	0.00	0.1	63	50	63	52	61	54	273	98
9	30	68	40	9	2703	2536	0.00		67	50	66	52	64	53	401	46
<b>Monthly Total</b>							<b>5.26</b>	<b>5.18</b>								
<b>Monthly Ave.</b>		<b>74</b>	<b>53</b>						<b>74</b>	<b>59</b>	<b>72</b>	<b>61</b>	<b>71</b>	<b>62</b>		
<b>Historic Ave.</b>		<b>74</b>	<b>48</b>				<b>3.08</b>		<b>73</b>	<b>57</b>	<b>69</b>	<b>60</b>	<b>65</b>	<b>61</b>		

**Nongrowing season (10/1/2016-4/30/2017)**

**University of MN Southwest Research and Outreach Center, Lamberton**  
<http://swroc.cfans.umn.edu>; 507-752-7372 (Phone)

mo	day	Tair Max F	Tair Low F	HDD	Cum HDD	Precip (in.)	Snow (in.)	Precip 2016	Soil Temperatures						Solar	Wind Run
									2" Max	2" Min	4" Max	4" Min	8" Max	8" Min		
10	1	72	42	8	8	0.00	0.00	31.97	67	51	67	53	65	54	375	57
10	2	74	44	6	14	0.00	0.00	31.97	71	54	70	56	68	57	335	53
10	3	77	45	4	17	0.00	0.00	31.97	72	54	72	56	69	57	379	54
10	4	75	53	1	19	0.00	0.00	31.97	71	56	70	58	68	58	365	250
10	5	71	44	7	26	1.33	0.00	33.30	66	55	66	57	65	58	139	186
10	6	66	39	12	38	0.00	0.00	33.30	63	49	63	51	62	53	389	129
10	7	55	34	21	59	0.74	0.00	34.04	58	44	58	46	58	48	236	132
10	8	51	30	25	83	0.00	0.00	34.04	55	42	55	44	54	46	383	111
10	9	54	29	23	107	0.00	0.00	34.04	56	41	56	43	55	45	350	76
10	10	65	31	17	124	0.00	0.00	34.04	57	41	57	43	55	45	367	185
10	11	73	49	4	128	0.00	0.00	34.04	61	49	60	50	59	51	300	269
10	12	58	37	18	145	0.05	0.00	34.09	56	45	55	47	55	49	111	145
10	13	46	28	28	173	0.00	0.00	34.09	52	40	52	42	52	44	222	105
10	14	59	30	21	194	0.00	0.00	34.09	54	40	54	42	53	44	353	203
10	15	73	44	7	200	0.00	0.00	34.09	59	44	58	45	56	46	281	413
10	16	68	39	12	212	0.00	0.00	34.09	62	47	61	49	60	51	139	92
10	17	71	42	8	220	0.00	0.00	34.09	60	47	59	49	58	50	187	140
10	18	71	47	6	226	0.09	0.00	34.18	64	52	63	53	62	54	155	117
10	19	66	41	11	237	0.00	0.00	34.18	62	48	62	50	61	51	293	121
10	20	48	30	26	263	0.00	0.00	34.18	53	41	54	43	54	45	172	84
10	21	51	29	25	288	0.00	0.00	34.18	54	40	54	42	53	44	318	64
10	22	58	32	20	308	0.00	0.00	34.18	54	39	53	42	52	43	209	136
10	23	67	41	11	319	0.00	0.00	34.18	59	43	58	44	57	46	306	98
10	24	59	27	22	340	0.00	0.00	34.18	56	42	56	44	55	45	305	121
10	25	54	28	24	364	0.00	0.00	34.18	54	41	54	43	53	45	276	132
10	26	56	42	16	380	0.47	0.00	34.65	52	46	52	47	51	47	97	282
10	27	48	42	20	401	0.00	0.00	34.65	50	46	50	47	50	48	67	71
10	28	60	43	14	414	0.00	0.00	34.65	57	47	56	48	54	48	209	187
10	29	76	49	2	417	0.00	0.00	34.65	61	51	60	51	58	51	240	8
10	30	52	37	21	437	0.14	0.00	34.79	54	45	54	47	54	48	77	5
10	31	47	37	23	460	0.00	0.00	34.79	48	44	49	46	49	46	68	5
<b>Monthly Total</b>				<b>460</b>		<b>2.82</b>	<b>0.00</b>								<b>7702</b>	<b>4032</b>
<b>Monthly Ave.</b>		<b>62</b>	<b>38</b>						<b>59</b>	<b>46</b>	<b>58</b>	<b>48</b>	<b>57</b>	<b>49</b>		
<b>Historic Ave.</b>		<b>61</b>	<b>36</b>		<b>514</b>		<b>2.05</b>		<b>58</b>	<b>45</b>	<b>55</b>	<b>48</b>	<b>53</b>	<b>49</b>		

**Nongrowing season (10/1/2016-4/30/2017)**

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mo	day	Tair Max F	Tair Low F	HDD	Cum HDD	Precip (in.)	Snow (in.)	Precip 2016	Soil Temperatures						Solar	Wind Run
									2" Max	2" Min	4" Max	4" Min	8" Max	8" Min		
11	1	59	41	15	475	0.00	0.00	34.79	54	45	53	46	52	47	70	234
11	2	61	38	15	490	0.00	0.00	34.79	56	45	55	46	54	47	245	66
11	3	61	37	16	506	0.00	0.00	34.79	56	43	55	45	54	46	166	82
11	4	66	40	12	518	0.00	0.00	34.79	56	43	56	45	55	46	260	83
11	5	73	41	8	527	0.00	0.00	34.79	57	43	56	45	55	46	258	104
11	6	75	40	7	534	0.00	0.00	34.79	58	44	57	45	56	46	250	160
11	7	70	44	8	542	0.00	0.00	34.79	57	46	56	48	55	48	251	272
11	8	62	38	15	557	0.00	0.00	34.79	56	44	55	46	55	47	94	145
11	9	56	32	21	578	0.00	0.00	34.79	53	40	53	42	53	43		93
11	10	62	37	15	594	0.00	0.00	34.79	52	40	52	42	51	43	242	292
11	11	65	33	16	610	0.00	0.00	34.79	56	40	54	43	53	44	237	132
11	12	49	28	27	636	0.00	0.00	34.79	50	36	50	39	50	40	242	136
11	13	55	36	20	656	0.00	0.00	34.79	48	36	48	39	47	40	242	445
11	14	65	37	14	670	0.00	0.00	34.79	53	41	52	43	51	43	227	174
11	15	49	31	25	695	0.00	0.00	34.79	49	40	48	42	48	43	102	110
11	16	61	29	20	715	0.00	0.00	34.79	52	38	51	40	50	41	195	103
11	17	64	37	15	729	0.00	0.00	34.79	51	38	50	40	49	41	194	124
11	18	52	32	23	753	0.32	0.40	35.11	49	40	48	42	48	44	90	251
11	19	32	20	39	792	0.34	3.70	35.45	40	36	42	37	44	38	84	240
11	20	25	11	47	839	0.05	0.00	35.50	36	36	37	37	38	38	229	84
11	21	30	19	40	879	0.00	0.00	35.50	36	35	37	36	38	37	221	174
11	22	37	21	36	915	0.17	0.00	35.67	35	34	36	35	37	36	184	247
11	23	34	31	33	948	0.53	1.00	36.20	34	33	35	34	36	36	24	81
11	24	33	31	33	981	0.00	0.00	36.20	34	34	35	35	36	36	71	71
11	25	35	28	34	1014	0.02	0.00	36.22	34	34	35	35	36	36	38	38
11	26	44	28	29	1043	0.00	0.00	36.22	35	34	36	35	38	36	198	127
11	27	45	25	30	1074	0.00	0.00	36.22	36	34	39	35	40	36	188	54
11	28	51	26	26	1100	0.28	0.00	36.50	42	34	42	35	42	35	77	292
11	29	42	32	28	1128	0.02	0.00	36.52	43	35	42	37	42	37	88	350
11	30	36	32	31	1159	0.12	0.30	36.64	38	35	38	36	39	37	52	222
<b>Monthly Total</b>				<b>698</b>		<b>1.85</b>	<b>5.40</b>								<b>4818</b>	<b>4985</b>
<b>Monthly Ave.</b>		<b>52</b>	<b>32</b>						<b>47</b>	<b>38</b>	<b>47</b>	<b>40</b>	<b>47</b>	<b>41</b>		
<b>Historic Ave.</b>		<b>43</b>	<b>23</b>		<b>1480</b>	<b>1.28</b>			<b>40</b>	<b>35</b>	<b>41</b>	<b>37</b>	<b>40</b>	<b>38</b>		

**Nongrowing season (10/1/2016-4/30/2017)**

**University of MN Southwest Research and Outreach Center, Lamberton**  
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mo	day	Tair Max F	Tair Low F	HDD	Cum HDD	Precip (in.)	Snow (in.)	Precip 2016	Soil Temperatures						Solar	Wind Run
									2" Max	2" Min	4" Max	4" Min	8" Max	8" Min		
12	1	33	31	33	1191	0.08	0.00	36.72	37	35	37	36	37	36	54	152
12	2	35	28	34	1225	0.00	0.00	36.72	37	34	37	35	38	36	43	101
12	3	30	25	38	1263	0.00	0.00	36.72	35	33	35	34	36	35	54	72
12	4	37	26	34	1296	0.00	0.00	36.72	36	33	37	34	37	35	138	202
12	5	43	31	28	1324	0.00	0.00	36.72	40	34	39	35	39	35	161	182
12	6	45	16	34	1358	0.00	0.00	36.72	39	33	39	34	38	35	59	310
12	7	23	9	49	1408	0.00	0.00	36.72	33	28	34	31	35	32	151	344
12	8	20	9	50	1458	0.00	0.10	36.72	30	26	31	29	32	30	175	276
12	9	19	0	56	1514	0.00	0.00	36.72	29	23	30	26	31	28	127	139
12	10	12	0	59	1573	0.00	0.00	36.72	27	23	28	25	29	26	122	86
12	11	17	2	55	1628	0.16	4.90	36.88	29	23	29	25	30	26	76	215
12	12	18	-15	63	1691	0.00	0.20	36.88	30	29	30	29	31	30	99	128
12	13	5	-12	68	1760	0.00	0.00	36.88	30	30	31	30	31	31	163	113
12	14	12	-4	61	1821	0.00	0.00	36.88	30	30	31	30	31	30	188	275
12	15	5	-16	71	1891	0.00	0.00	36.88	30	29	30	30	31	30	190	168
12	16	12	-15	66	1958	0.02	0.40	36.90	30	29	31	30	31	30	153	116
12	17	13	-2	60	2017	0.19	4.00	37.09	31	30	31	31	31	31	78	202
12	18	-2	-28	80	2097	0.00	0.00	37.09	31	30	31	31	31	31	152	130
12	19	10	-27	74	2171	0.00	0.00	37.09	31	30	31	31	31	31	166	373
12	20	33	10	44	2214	0.00	0.00	37.09	31	30	31	31	31	31	160	449
12	21	36	23	36	2250	0.00	0.00	37.09	31	31	31	31	31	31	168	250
12	22	40	13	38	2288	0.00	0.00	37.09	31	31	32	31	32	31	123	189
12	23	35	14	40	2329	0.00	0.00	37.09	31	31	32	32	32	32	172	284
12	24	36	23	36	2364	0.00	0.00	37.09	32	31	32	32	32	32	38	130
12	25	32	23	38	2402	0.01	0.00	37.10	32	31	32	32	32	32	58	205
12	26	42	15	36	2438	0.69	0.00	37.79	32	32	32	32	32	32	15	584
12	27	20	14	48	2486	0.00	0.00	37.79	32	32	32	32	32	32	121	312
12	28	33	14	42	2528	0.00	0.00	37.79	32	32	32	32	32	32	177	139
12	29	38	24	34	2562	0.00	0.00	37.79	32	32	32	32	32	32	179	234
12	30	34	18	39	2602	0.00	0.00	37.79	32	32	32	32	32	32	173	191
12	31	36	16	39	2641	0.00	0.00	37.79	32	32	32	32	33	32	108	7
<b>Monthly Total</b>				<b>1482</b>		<b>1.15</b>	<b>9.60</b>								<b>3842</b>	<b>6555</b>
<b>Monthly Ave.</b>		<b>26</b>	<b>9</b>						<b>32</b>	<b>30</b>	<b>32</b>	<b>31</b>	<b>33</b>	<b>32</b>		
<b>Historic Ave.</b>		<b>28</b>	<b>9</b>		<b>2917</b>		<b>0.73</b>		<b>30</b>	<b>29</b>	<b>32</b>	<b>31</b>	<b>33</b>	<b>32</b>		