

Fruit Crop Phenology Model Output Data for Apr. 24, 2009 (program drops overnight low & backs up date by one day). For information, contact: Dr. Harold Larsen, WCRC—OM, Grand Junction, CO.
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Location: **WCRC - Orchard Mesa**, [Mesa Co.] Colo. Observation Date: Apr. 23, 2009

Crop: APRICOT Cultivar: Tilton Deviation From Normal: Days
Chill Units (CU) Accumulated: 728 Growing Degree Hours Accumulated: 8,724
Calculated Stage of Development: 8+ Spring T50 temperature (Model): 30 °F

Stage	Description	Req'd. (CU) / GDH	Normal Date	Estimated (*) or Observed Date	Estimated Critical Temperatures	
					T10	T90
	Begin CU Accum.		Oct. 7	Oct. 11		
	Rest Completion	(720)	Dec. 23	Dec. 26		
1	First Swell	949	Feb. 27	Feb. 22	15°F	--
2	Tip Separates	1,444	Mar. 9	Feb. 26	20°F	0°F
3	Red Calyx	2,122	Mar. 17	Mar. 4	22°F	9°F
4	First White	3,039	Mar. 26	Mar. 15	24°F	14°F
5	First Bloom	3,533	Mar. 30	Mar. 18	24°F	19°F
6	Full Bloom	4,111	Apr. 4	Mar. 20 (3/19)	25°F	22°F
7	In The Shuck	5,217	Apr. 12	Apr. 2	27°F	24°F
8	First Green	6,828	Apr. 22	Apr. 14	28°F	25°F
9	Fruit Growth					

¹ Critical temperatures from Wash. St. Univ. researchers, Prosser, WA (1964-76) and are based on 30 min. exposure to that temperature.

Crop: PRUNE PLUM Cultivar: Italian Deviation From Normal: 0 Days
Chill Units (CU) Accumulated: 797 Growing Degree Hours Accumulated: 8,711
Calculated Stage of Development: 7+ (obs. 6.2) Spring T50 temperature (Model): 30 °F

Stage	Description	Req'd. (CU) / GDH	Normal Date	Estimated (*) or Observed Date	Estimated Critical Temperatures	
					T10	T90
	Begin CU Accum.		Oct. 7	Oct. 11		
	Rest Completion	(788)	Jan. 4	Jan. 16		
1	First Swell	2,533	Mar. 22	Mar. 9	14°F	0°F
2	Side White	3,056	Mar. 27	Mar. 15	17°F	3°F
3	Tip Green	3,623	Apr. 1	Mar. 18	20°F	7°F
4	Tight Cluster	4,489	Apr. 7	Mar. 21	24°F	16°F
5	First White	5,417	Apr. 13	Apr. 7	26°F	22°F
6	First Bloom	5,684	Apr. 15	Apr. 8	27°F	23°F
→ 7	Full bloom	6,412	Apr. 19	Apr. 12 (4/19)	28°F	23°F
8	Fruit Growth				28°F	23°F

¹ Critical temperatures from Wash. St. Univ. researchers, Prosser, WA (1964-76) and are based on 30 min. exposure to that temperature.

Date: 4/23/2009

Crop: PEACH Cultivar: Elberta
 Chill Units (CU) Accumulated: 807
 Calculated Stage of Development: 8+ (Obs. 6.0)

Deviation From Normal: -1 Days
 Growing Degree Hours Accumulated: 8,704
 Spring T50 temperature (Model): 30 °F

Stage	Description	Req'd. (CU) / GDH	Normal Date	Estimated (*) or Observed Date	Estimated Critical Temperatures T10 T90	
	Begin CU Accum.		Oct. 7	Oct. 11		
	Rest Completion	(800)	Jan. 8	Jan. 17		
1	First Swell	2,196	Mar. 19	Mar. 4	18°F	1°F
2	Calyx Green	2,662	Mar. 23	Mar. 11	20°F	6°F
3	Calyx Red	3,169	Mar. 28	Mar. 16	24°F	15°F
4	First Pink	3,729	Apr. 1	Mar. 19	25°F	19°F
5	First Bloom	4,365	Apr. 6	Mar. 21	26°F	21°F
6	Full Bloom	5,116	Apr. 11	Mar. 31 (4/10)	27°F	24°F
→ 7	Post Bloom	6,089	Apr. 17	Apr. 9	28°F	25°F
8	Fruit Growth				28°F	25°F

¹ Critical temperatures from Wash. St. Univ. researchers, Prosser, WA (1964-76) and are based on 30 min. exposure to that temperature.

Crop: PEACH Cultivar: Redhaven
 Chill Units (CU) Accumulated: 887
 Calculated Stage of Development: 8+ (Obs. 7.0)

Deviation From Normal: -1 Days
 Growing Degree Hours Accumulated: 8,641
 Spring T50 temperature (Model): 30 °F

Stage	Description	Req'd. (CU) / GDH	Normal Date	Estimated (*) or Observed Date	Estimated Critical Temperatures T10 T90	
	Begin CU Accum.		Oct. 7	Oct. 11		
	Rest Completion	(870)	Jan. 19	Jan. 23		
1	First Swell	1,592	Mar. 12	Mar. 2	18°F	1°F
2	Calyx Green	2,449	Mar. 22	Mar. 8	20°F	6°F
3	Calyx Red	3,193	Mar. 29	Mar. 16	24°F	15°F
4	First Pink	3,860	Apr. 3	Mar. 19	25°F	19°F
5	First Bloom	4,470	Apr. 8	Mar. 22	26°F	21°F
6	Full Bloom	5,036	Apr. 11	Mar. 31 (4/10)	27°F	24°F
→ 7	Post Bloom	5,565	Apr. 14	Apr. 7	28°F	25°F
8	Fruit Growth				28°F	25°F

¹ Critical temperatures from Wash. St. Univ. researchers, Prosser, WA (1964-76) and are based on 30 min. exposure to that temperature.

NOTE: Current actual bud development (arrow) is behind the model.

Date: 4/23/2009

Crop: Sweet CHERRY Cultivar: Bing
 Chill Units (CU) Accumulated: 887
 Calculated Stage of Development: 8+ (Obs. 8.8)

Deviation From Normal: -5 Days
 Growing Degree Hours Accumulated: 8,641
 Spring T50 temperature (Model): 30 °F

Stage	Description	Req'd. (CU) / GDH	Normal Date	Estimated (*) or Observed Date	Estimated Critical Temperatures T10 T90	
	Begin CU Accum.		Oct. 7	Oct. 11		
	Rest Completion	(880)	Jan. 20	Jan. 23		
1	First Swell	2,356	Mar. 21	Mar. 6	17°F	5°F
2	Side Green	2,683	Mar. 24	Mar. 12	22°F	9°F
3	Green Tip	3,533	Mar. 31	Mar. 18	25°F	14°F
4	Tight Cluster	4,050	Apr. 5	Mar. 20	26°F	17°F
5	Open Cluster	4,417	Apr. 7	Mar. 21	27°F	21°F
6	First White	4,661	Apr. 9	Mar. 22	27°F	24°F
7	First Bloom	5,328	Apr. 13	Apr. 7	28°F	25°F
8	Full Bloom	6,172	Apr. 18	Apr. 12 (4/13)	28°F	25°F
→ 9	Post Bloom	7,528	Apr. 26	Apr. 19	28°F	25°F
10	Fruit Growth				28°F	25°F

¹ Critical temperatures from Wash. St. Univ. researchers, Prosser, WA (1964-76) and are based on 30 min. exposure to that temperature.

Crop: Tart CHERRY Cv. Montmorency
 Chill Units (CU) Accumulated: 953
 Calculated Stage of Development: 9+ (Obs. 8.9)

Deviation From Normal: -7 Days
 Growing Degree Hours Accumulated: 8,552
 Spring T50 temperature (Model): 30 °F

Stage	Description	Req'd. (CU) / GDH	Normal Date	Estimated (*) or Observed Date	Estimated Critical Temperatures T10 T90	
	Begin CU Accum.		Oct. 7	Oct. 11		
	Rest Completion	(950)	Jan. 28	Jan. 28		
1	First Swell	1,703	Mar. 15	Mar. 3	15°F	0°F
2	Side Green	2,327	Mar. 22	Mar. 8	24°F	10°F
3	Green Tip	2,988	Mar. 28	Mar. 16	26°F	22°F
4	Tight Cluster	3,690	Apr. 2	Mar. 19	26°F	24°F
5	Open Cluster	4,446	Apr. 8	Mar. 22	28°F	24°F
6	First White	5,267	Apr. 13	Apr. 7	28°F	24°F
7	First Bloom	6,176	Apr. 18	Apr. 13	28°F	24°F
8	Full Bloom	7,208	Apr. 25	Apr. 19 (4/19)	28°F	25°F
→ 9	Post Bloom	8,433	May 1	Apr. 22	28°F	25°F
10	Fruit Growth				28°F	25°F

¹ Critical temperatures from researchers at Michigan State University, and mortality is based on 30 min. exposure to that temperature.

NOTE: Current actual bud development (arrow) is behind the model.

Date: 4/23/2009

Crop: PEAR Cultivar: Bartlett
 Chill Units (CU) Accumulated: 1216
 Calculated Stage of Development: 8+ (obs. 8+)

Deviation From Normal: -4 Days
 Growing Degree Hours Accumulated: 7,998
 Spring T50 temperature (Model): 30 °F

Stage	Description	Req'd. (CU) / GDH	Normal Date	Estimated (*) or Observed Date	Estimated Critical Temperatures T10 T90	
	Begin CU Accum.		Oct. 7	Oct. 11		
	Rest Completion	(1,210)	Feb. 22	Feb. 16		
1	Scale Separation	1,794	Mar. 22	Mar. 8	15°F	0°F
2	Blsm Buds Exposed	2,722	Mar. 30	Mar. 17	20°F	6°F
3	Tight Cluster	3,128	Apr. 2	Mar. 19	24°F	15°F
4	First White	4,244	Apr. 10	Mar. 28	25°F	19°F
5	Full White	4,750	Apr. 13	Apr. 7	26°F	22°F
6	First Bloom	5,044	Apr. 15	Apr. 8	27°F	23°F
7	Full Bloom	5,644	Apr. 18	Apr. 13 (4/15)	28°F	24°F
→ 8	Post Bloom	6,817	Apr. 25	Apr. 19	28°F	24°F
9	Fruit Growth				28°F	24°F

¹ Critical temperatures from Wash. St. Univ. researchers, Prosser, WA (1964-76) and are based on 30 min. exposure to that temperature.

Crop: APPLE Cultivar: (red) Delicious
 Chill Units (CU) Accumulated: 1236
 Calculated Stage of Development: 8+ (Obs. 8+)

Deviation From Normal: -3 Days
 Growing Degree Hours Accumulated: 7,962
 Spring T50 temperature (Model): 30 °F

Stage	Description	Req'd. (CU) / GDH	Normal Date	Estimated (*) or Observed Date	Estimated Critical Temperatures T10 T90	
	Begin CU Accum.		Oct. 7	Oct. 11		
	Rest Completion	(1,234)	Feb. 24	Feb. 17		
1	Silver Tip	2,061	Mar. 25	Mar. 13	15°F	2°F
2	Green Tip	2,544	Mar. 29	Mar. 17	18°F	10°F
3	1/2 in. Green Tip	3,100	Apr. 2	Mar. 19	23°F	15°F
4	Tight Cluster	3,939	Apr. 9	Mar. 22	27°F	21°F
5	First Pink	4,856	Apr. 14	Apr. 8	28°F	24°F
6	Full Pink	5,394	Apr. 17	Apr. 11	28°F	25°F
7	First Bloom	6,172	Apr. 22	Apr. 15	28°F	25°F
→ 8	Full Bloom	6,933	Apr. 26	Apr. 19 (4/23)	28°F	25°F
9	Fruit Growth				28°F	25°F

¹ For red Delicious. Critical temperatures prior to petal fall are approx. 1° lower for Golden Delicious and Winesap and approx. 2° lower for Rome Beauty. All varieties are equally tender after petal fall. Temperatures from Wash. St. Univ. researchers, Prosser, WA (1964-76) and are based on 30 min. exposure to that temperature.

NOTE: Current actual bud development (arrow) is behind the model.