2013 GROWTH STAGES - NW Michigan Horticultural Research Center

Traverse City, MI

Date	Time	Growing Degree Days - Base 42	Bartlett Pear	Potomac Pear	Mac	Gala	Red Delicious	Golden Delicious	Montmorency	Balaton	Hedelfingen	Gold	Napoleon	Chardonay	58.900.12 Plum	Apricot
4/18/13	3:00 PM	26	Ear. Swoll. Bud	Swollen Bud	Dormant	Ear. Silver Tip	Dormant	Dormant	Ear. Swoll. Bud	Swollen Bud	Swollen Bud	Swollen Bud	Swollen Bud	Dormant	--	Swollen Bud
4/22/13	2:00 PM	33	Ear. Swoll. Bud	Swollen Bud	Silver Tip	Ear. Silver Tip	Silver Tip	Silver Tip	Swollen Bud	Side Green	Swollen Bud	Side Green	Side Green	Dormant	--	Ear. Red Tip
4/26/13	2:00 PM	50	Swollen Bud	Swollen Bud	Silver Tip	Ear. Silver Tip	Silver Tip	Silver Tip	Side Green	Side Green	Side Green	Side Green	Side Green	Ear. Scale Crack	--	Ear. Red Tip
4/29/13	4:00 PM	100	Swollen Bud	Late Swoll. Bud	Green Tip	Green Tip	Green Tip	Green Tip	Green Tip	Green Tip	Green Tip	Green Tip	Green Tip	Ear. Scale Crack	--	Red Tip
5/1/13	3:30 PM	148	Bud Burst	Bud Burst	1/4" Green	1/2" Green	1/4" Green	1/4" Green	Late Green Tip	Bud Burst	Late Green Tip	Early Bud Burst	Early Bud Burst	Scale Crack	--	Red Tip
5/3/13	4:30 PM	167	Bud Burst	Late Bud Burst	1/4" Green	1/2" Green	1/2" Green	1/4" Green	Late Green Tip	Bud Burst	Bud Burst	Bud Burst	Late Bud Burst	Scale Crack	--	Ear. Wht. Bud
5/5/13	12:00 PM	195	Green Cluster	Ear. Green Cluster	Ear. Tight Cluster	Tight Cluster	Ear. Tight Cluster	Ear. Tight Cluster	Ear. Bud Burst	Late Bud Burst	Ear. White Bud	Late Bud Burst	Ear. White Bud	Ear. Bud Swell	--	First Bloom
5/6/13	4:00 PM	222	Green Cluster	Green Cluster	Ear. Tight Cluster	Tight Cluster	Ear. Tight Cluster	Ear. Tight Cluster	Bud Burst	Late Bud Burst	White Bud	Ear. White Bud	White Bud	Ear. Bud Swell	--	90% Bloom
5/7/13	2:30 PM	246	Late Green Cluster	Late Green Cluster	Tight Cluster	Tight Cluster	Ear. Tight Cluster	Ear. Tight Cluster	Bud Burst	Late Bud Burst	30% Bloom	White Bud	50% Bloom	Ear. Bud Swell	--	95% Bloom
5/8/13	4:30 PM	268	Ear. White Bud	White Bud	Tight Cluster	Late Tight Cluster	Tight Cluster	Tight Cluster	Ear. White Bud	Ear. White Bud	95% Bloom	30% Bloom	Full Bloom	Ear. Bud Swell	--	Ear. Petal Fall
5/10/13	4:00 PM	294	Popcorn	Popcorn	Tight Cluster	Late Tight Cluster	Early Pink	Early Pink	First Bloom	First Bloom	Full Bloom	90% Bloom	Full Bloom	Late Bud Swell	--	Petal Fall
5/13/13	4:00 PM	298	Popcorn	First Bloom	Early Pink	Early Pink	Early Pink	Early Pink	First Bloom	First Bloom	Full Bloom	Full Bloom	Full Bloom	Early Bud Burst	--	Late Petal Fall
5/15/13	3:30 PM	322	90% Bloom	90% Bloom	Pink	Pink	Pink	Pink	60% Bloom	60% Bloom	Early Petal Fall	Full Bloom	Early Petal Fall	Bud Burst	--	In Shuck
5/16/13	3:30 PM	339	Full Bloom	Full Bloom	Open Cluster	Open Cluster	Early Open Cluster	Pink	80% Bloom	90% Bloom	Petal Fall	Early Petal Fall	Petal Fall	Late Bud Burst	--	In Shuck
5/20/13	2:30 PM	415	Petal Fall	Petal Fall	30% Bloom	60% Bloom	40% Bloom	King Bloom	Early Petal Fall	Early Petal Fall	In Shuck	Petal Fall	Late Petal Fall	1" - 3" Shoots	--	Shuck Split
5/24/13	4:00 PM	474	In Shuck	In Shuck	90% Bloom	95% Bloom	Early Petal Fall	50% Bloom	Petal Fall	In Shuck	7 mm Fruit	In Shuck	Shuck Split	1" - 3" Shoots	--	8 mm Fruit
5/28/13	8:30 AM	512	7 mm Fruit	8 mm Fruit	Petal Fall	Petal Fall	Petal Fall	Petal Fall	In Shuck	In Shuck	9 mm Fruit	6 mm Fruit	7 mm Fruit	4" - 8" Shoots	--	11 mm Fruit
5/31/13	3:00 PM	607	8.5 mm Fruit	10 mm Fruit	Late Petal Fall	Late Petal Fall	6 mm Fruit	Late Petal Fall	Shuck Split	Shuck Split	10 mm Fruit	9 mm Fruit	9 mm Fruit	4" - 8" Shoots	--	15 mm Fruit
6/3/13	4:00 PM	650	9 mm Fruit	12 mm Fruit	10 mm Fruit	8 mm Fruit	8 mm Fruit	8 mm Fruit	9 mm Fruit	9 mm Fruit	11 mm Fruit	10 mm Fruit	10 mm Fruit	4" - 8" Shoots	--	17 mm Fruit
6/7/13	3:30 PM	710	10 mm Fruit	13 mm Fruit	11 mm Fruit	10 mm Fruit	10 mm Fruit	9 mm Fruit	10 mm Fruit	10 mm Fruit	11 mm Fruit	10 mm Fruit	11 mm Fruit	10" - 16" Shoots	--	21 mm Fruit
6/10/13	10:30 AM	760	13 mm Fruit	17 mm Fruit	18 mm Fruit	13 mm Fruit	12 mm Fruit	11 mm Fruit	11 mm Fruit	11 mm Fruit	12 mm Fruit	11 mm Fruit	12 mm Fruit	10" - 16" Shoots	--	22 mm Fruit
6/17/13	4:00 PM	927	15 mm Fruit	20 mm Fruit	25 mm Fruit	18 mm Fruit	18 mm Fruit	16 mm Fruit	11 mm Fruit	11 mm Fruit	12 mm Fruit	11 mm Fruit	12 mm Fruit	10" - 16" Shoots	--	24 mm Fruit
6/24/13	8:30 AM	1090	17 mm Fruit	21 mm Fruit	29 mm Fruit	20 mm Fruit	24 mm Fruit	19 mm Fruit	11 mm Fruit	11 mm Fruit	12 mm Fruit	11 mm Fruit	12 mm Fruit	30% Bloom	--	24 mm Fruit
7/1/13	8:00 AM	1306	20 mm Fruit	24 mm Fruit	36 mm Fruit	23 mm Fruit	32 mm Fruit	25 mm Fruit	13 mm Fruit	12 mm Fruit	14 mm Fruit	12 mm Fruit	15 mm Fruit	Early Buckshot	--	25 mm Fruit
7/8/13	2:00 PM	1520	29 mm Fruit	33 mm Fruit	41 mm Fruit	33 mm Fruit	40 mm Fruit	32 mm Fruit	18 mm Fruit	16 mm Fruit	20 mm Fruit	18 mm Fruit	20 mm Fruit	Buckshot Berry	--	27 mm Fruit
7/15/13	2:00 PM	1730	32 mm Fruit	37 mm Fruit	51 mm Fruit	42 mm Fruit	47 mm Fruit	41 mm Fruit	20 mm Fruit	19 mm Fruit	21 mm Fruit	22 mm Fruit	Harvested	Buckshot Berry	--	28 mm Fruit
7/22/13	2:30 PM	1989	35 mm Fruit	39 mm Fruit	53 mm Fruit	44 mm Fruit	48 mm Fruit	44 mm Fruit	Harvest this week	20 mm Fruit	Harvested	Harvested	--	Berry Touch	--	31 mm Fruit
7/29/13	11:30 AM	2130	36 mm Fruit	40 mm Fruit	54 mm Fruit	46 mm Fruit	50 mm Fruit	45 mm Fruit	--	20 mm Fruit	--	--	--	Green Fruit	--	32 mm Fruit
8/5/13	9:00 AM	2290	38 mm Fruit	42 mm Fruit	56 mm Fruit	47 mm Fruit	52 mm Fruit	46 mm Fruit	--	Harvested	--	--	--	Green Fruit	--	Harvested
8/13/13	8:30 AM	2467	40 mm Fruit	45 mm Fruit	56 mm Fruit	49 mm Fruit	54 mm Fruit	50 mm Fruit	--	--	--	--	--	Green Fruit	--	--
8/19/13	11:30 AM	2625	43 mm Fruit	48 mm Fruit	56 mm Fruit	51 mm Fruit	56 mm Fruit	51 mm Fruit	--	--	--	--	--	Green Fruit	--	--
9/3/13	1:30 PM	3075	Harvested	53 mm Fruit	65 mm Fruit	60 mm Fruit	63 mm Fruit	61 mm Fruit	--	--	--	--	--	Veraison	--	--
9/9/13	3:00 PM	3210	--	56 mm Fruit	66 mm Fruit	62 mm Fruit	66 mm Fruit	63 mm Fruit	--	--	--	--	--	Veraison	--	--
9/16/13	1:00 PM	3340	--	58 mm Fruit	Harvest this week	65 mm Fruit	68 mm Fruit	66 mm Fruit	--	--	--	--	--	PreHarvest	--	--
9/23/13	1:00 PM	3454	--	Harvested	--	65 mm Fruit	69 mm Fruit	67 mm Fruit	--	--	--	--	--	Soft Fruit	--	--