

# 2019 Hudson Valley Research Lab Scouting Report

NYSAES Entomology Dept., Highland, NY

<u>Date</u>	<u>Baskerville-Emin (BE)</u>		<u># / trap / day (pheromone trap)</u>	<u>Field Observations / Trap Catches / Models</u>
	<u>DD Accumulations (previous day NEWA)</u>	<u>DD Accumulations (previous day NEWA)</u>		
	<b>43 F</b>	<b>50 F</b>		
3/19	54.2	20.6		Beginning degree day accumulations beginning 1 January, 2019
			0.0	Spotted Green Fruitworm (SGFW) (0/0)
			0.5	Redbanded Leafroller (RBLR) (0/1) FIRST CATCH
			0.0	Spotted Tentiform Leafminer (STLM) (0/0)
			0.0	Lesser Appleworm (LAW)
			0.0	Oriental Fruit Moth (OFM)
			0.0	Pear Psylla 0 Eggs/25 Buds
			0.11	Weekly Rainfall
			0.73	Total Rainfall (Since 1 March, 2019)
3/25	61.3	22.4		Beginning degree day accumulations beginning 1 January, 2019
			0.0	Spotted Green Fruitworm (SGFW) (0/0)
			0.0	Redbanded Leafroller (RBLR) (0/0)
			0.0	Spotted Tentiform Leafminer (STLM) (0/0)
			0.0	Lesser Appleworm (LAW)
			0.0	Oriental Fruit Moth (OFM)
			0.04	Pear Psylla 1 Egg/25 Buds FIRST CATCH
			1.01	Weekly Rainfall
			1.74	Total Rainfall (Since 1 March, 2019)
4/1	62.9	33.5		Beginning degree day accumulations beginning 1 January, 2019
			0.1	Spotted Green Fruitworm (SGFW) (0/2) FIRST CATCH
			0.2	Redbanded Leafroller (RBLR) (3/0)
			0.0	Spotted Tentiform Leafminer (STLM) (0/0)
			0.0	Lesser Appleworm (LAW)
			0.0	Oriental Fruit Moth (OFM)
			0.04	Pear Psylla 1 Egg/25 Buds FIRST SUSTAINED CATCH
				Mid-silver tip in Empire and Zestar
				Some green tissue visible on Jersey Mac and Zestar
			0.27	Weekly Rainfall
			2.01	Total Rainfall (Since 1 March, 2019)

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	<u>DD Accumulations (previous day NEWA)</u>	<u>DD Accumulations (previous day NEWA)</u>		
	<b>43 F</b>	<b>50 F</b>		
4/8	121.2	47.6		Beginning degree day accumulations beginning 1 January, 2019
			0.0	Spotted Green Fruitworm (SGFW) (0/0)
			1.6	Redbanded Leafroller (RBLR) (17/5) FIRST SUSTAINED CATCH
			0.0	Spotted Tentiform Leafminer (STLM) (0/0)
			0.0	Lesser Appleworm (LAW)
			0.0	Oriental Fruit Moth (OFM)
			0.2	Pear Psylla 6 Eggs/25 Buds
				Phenology:
				Empire 71% ½" green
				Zestar 70% green tip
				Jersey Mac 57% green tip
				Honeycrisp 58% silver tip
				Ginger Gold 40% silver tip, 40% green tip
				Red Delicious (Red Chief) 47% silver tip
				McIntosh (Red Max) 50% silver tip
			0.79	Weekly Rainfall
			2.46	Total Rainfall (Since 1 March, 2019)
4/15	196.4	88.6		Beginning degree day accumulations beginning 1 January, 2019
			0.0	Spotted Green Fruitworm (SGFW) (0/0)
			5.8	Redbanded Leafroller (RBLR) (49/32)
			0.0	Spotted Tentiform Leafminer (STLM) (5/6) FIRST CATCH
			0.0	Lesser Appleworm (LAW) (0/0)
			0.1	Oriental Fruit Moth (OFM) (0/1) FIRST CATCH
			1.2	Pear Psylla 29 Eggs/25 Buds
				Phenology:
				Ginger Gold 54% tight cluster
				Red Delicious (Red Chief) 54% ½" green
				McIntosh (Red Max) 55% ½" green
				Smoothie 56% tight cluster
			1.07	Weekly Rainfall
			3.53	Total Rainfall (Since 1 March, 2019)

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	<u>DD Accumulations (previous day NEWA)</u>			
	<b>43 F</b>	<b>50 F</b>		
4/22	282.3	134.3		Beginning degree day accumulations beginning 1 January, 2019
			0.0	Spotted Green Fruitworm (SGFW) (0/0)
			9.1	Redbanded Leafroller (RBLR) (19/109)
			7.3	Spotted Tentiform Leafminer (STLM) (51/51) FIRST SUSTAINED CATCH
			0.0	Lesser Appleworm (LAW) (0/0)
			0.0	Oriental Fruit Moth (OFM) (0/0)
			0.1	Black Stem Borer (BSB)(adults in trap) (1/1) FIRST CATCH
			8.72	Pear Psylla 218 Eggs/25 Buds
			0.04	Pear Psylla 1 Nymph/ 25 Buds FIRST CATCH
				Phenology:
				Apples
				Empire 89.7% pink
				Zestar 90.3% pink
				Jersey Mac 83% tight cluster
				Honeycrisp 55% pink
				Brookfield Gala 75% tight cluster
				Red Delicious (Red Chief) 76% tight cluster
				McIntosh (Red Max) 72% pink
				Ginger Gold 74% pink
				Smoothie 93% tight cluster
				Pears
				Bartlett 86% green cluster
				Bosc 85% green cluster
				Cherry
				Black Pearl 98% bloom
				Ebony Pearl 73% bloom
				Regina 51% early white
				Peach
				Early 73% bloom
				Late 79% bloom
			1.34	Weekly Rainfall
			4.83	Total Rainfall (Since 1 March, 2019)

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	<u>DD Accumulations (previous day NEWA)</u>	<u>DD Accumulations (previous day NEWA)</u>		
	<b>43 F</b>	<b>50 F</b>		
4/29	356.1	172.0		Beginning degree day accumulations beginning 1 January, 2019
			0.0	Spotted Green Fruitworm (SGFW) (0/0)
			8.2	Redbanded Leafroller (RBLR) (35/80)
			7.4	Spotted Tentiform Leafminer (STLM) (46/57)
			0.0	Lesser Appleworm (LAW) (0/0)
			3.1	Oriental Fruit Moth (OFM) (7/36) <b>First Flight</b>
			0.0	Codling Moth (CM) (0/0)
			0.3	Black Stem Borer (BSB)(adults in trap) (3/1) <b>FIRST SUSTAINED CATCH</b>
			0.0	Brown Marmorated Stink Bug (BMSB) (0/0)
			2.2	Pear Psylla 54 Eggs/25 Leaves
			1.8	Pear Psylla 45 Nymph/ 25 Leaves <b>FIRST SUSTAINED CATCH</b>
				Phenology:
				Apples
				Empire 55.6% bloom
				Zestar 70.0% bloom
				Jersey Mac 59.5% bloom
				Honeycrisp 52.3% king bloom
				Gala 69.0% pink
				Red Delicious (Red Chief) 80% pink
				McIntosh (Red Max) 37% bloom
				Ginger Gold 43.0% bloom
				Smoothie 93.8% pink
				Pears
				Bartlett 69.2% bloom
				Bosc 73% bloom
				Cherry
				Black Pearl 83% petal fall
				Ebony Pearl 74.5% bloom
				Regina 85.6% bloom
				Peach
				Early 100% petal fall
				Late 87.2% petal fall
			1.18*	Weekly Rainfall
			6.01*	Total Rainfall (Since 1 March, 2019)
				*weather station indicates incomplete data

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	<u>DD Accumulations (previous day NEWA)</u>	<u>DD Accumulations (previous day NEWA)</u>		
	<b>43 F</b>	<b>50 F</b>		
5/6	424.9	200.8		Beginning degree day accumulations beginning 1 January, 2019
			0.0	Spotted Green Fruitworm (SGFW) (0/0)
			8.4	Redbanded Leafroller (RBLR) (43/75)
			9.4	Speckled Tentiform Leafminer (STLM) (72/59)
			0.0	Lesser Appleworm (LAW) (0/0)
			4.4	Oriental Fruit Moth (OFM) (7/54)
			0.0	Codling Moth (CM) (0/0)
			0.2	Black Stem Borer (BSB)(adults in trap) (1/2)
			0.0	Brown Marmorated Stink Bug (BMSB) (0/0)
			2.5	Pear Psylla 62 Eggs/25 Leaves
			1.0	Pear Psylla 26 Nymph/ 25 Leaves
				Phenology:
				Apples
				Empire 57% bloom
				Zestar 85% king bloom
				Jersey Mac 85% bloom
				Honeycrisp 87% bloom
				Gala 54.5% bloom
				Red Delicious (Red Chief) 78% bloom
				McIntosh (Red Max) 55% bloom
				Ginger Gold 54% bloom
				Smoothie 58% bloom
				Pears
				Bartlett 77% petal fall
				Bosc 68% petal fall
				Cherry
				Black Pearl 81% petal fall
				Ebony Pearl 93% petal fall
				Regina 50% bloom
				Peach
				Early 100% petal fall
				Late 100% petal fall
			1.19	Weekly Rainfall
			7.2	Total Rainfall (Since 1 March, 2019)

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	<u>DD Accumulations (previous day NEWA)</u>	<u>DD Accumulations (previous day NEWA)</u>		
	<b>43 F</b>	<b>50 F</b>		
5/13	520.3	251.7		Beginning degree day accumulations beginning 1 January, 2019
			0.0	Spotted Green Fruitworm (SGFW) (0/0)
			6.6	Redbanded Leafroller (RBLR) (50/43)
			0.0	Speckled Tentiform Leafminer (STLM) (0/0)
			27.1	Lesser Appleworm (LAW) (112/156)
			0.0	Oriental Fruit Moth (OFM) (0/0)
			0.29	Codling Moth (CM) (4/0) FIRST CATCH
			0.7	Black Stem Borer (BSB) (adults in trap) (5/5)
			0.0	Brown Marmorated Stink Bug (BMSB) (0/0)
			0.0	Pear Psylla 0 Eggs/25 Leaves
			0.0	Pear Psylla 0 Nymph/ 25 Leaves
				Phenology:
				Apples
				Empire - 5mm 44%
				Zestar - 7mm 58%
				Jersey Mac – petal fall 53%
				Honeycrisp - petal fall 58%
				Gala – petal fall 60%
				Red Delicious (Red Chief) – petal fall 62%
				McIntosh (Red Max) – petal fall 50%
				Ginger Gold – 5mm 49%
				Smoothie – petal fall 53%
				Pears
				Bartlett – petal fall 51%
				Bosc – fruit set 87%
				Cherry
				Black Pearl – fruit set 87%
				Ebony Pearl – fruit set 89%
				Regina – petal fall 90%
				Peach
				Early – fruit set, shucks on 71%
				Late – fruit set, shucks on 66%
			2.6	Weekly Rainfall
			9.8	Total Rainfall (Since 1 March, 2019)

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	<b><u>DD Accumulations (previous day NEWA)</u></b>			
	<b>43 F</b>	<b>50 F</b>		
5/20	606.6	303.2		Beginning degree day accumulations beginning 1 January, 2019
			0.0	Spotted Green Fruitworm (SGFW) (0/0)
			2.9	Redbanded Leafroller (RBLR) (12/28)
			8.7	Speckled Tentiform Leafminer (STLM) (58/64)
			0.1	Lesser Appleworm (LAW) (0/2)
			4.8	Oriental Fruit Moth (OFM) (38/29)
			3.1	Codling Moth (CM) (6/38) <b>FIRST SUSTAINED CATCH</b>
			0.4	Black Stem Borer (BSB) (adults in trap) (5/1)
			0.0	Brown Marmorated Stink Bug (BMSB) (0/0)
				<b>San Jose Scale Trap Set &amp; 1<sup>st</sup> emergence</b>
			2.6	Pear Psylla 64 Eggs/25 Leaves
			1.2	Pear Psylla 30 Nymph/ 25 Leaves
				PC 3% of untreated Ginger Gold fruit
				TPB 2% of untreated Ginger Gold fruit
				Phenology:
				Apples
				Empire – 43% 10mm
				Zestar – 55% 14mm
				Jersey Mac – 37% 10mm
				Honeycrisp – 33.9% 8mm & 33.9% 10mm
				Gala – 35% 8mm
				Red Delicious (Red Chief) – 54% 10mm
				McIntosh (Red Max) – 55% 10mm
				Ginger Gold – 26% 14mm
				Smoothie – 45% 10mm
				Degree Day Models
				<b>San Jose Scale biofix 1<sup>st</sup> SJS adult emergence</b>
				Pears
				Bartlett – 39% 12mm
				Bosc – 38% 10mm
				Cherry Fruit Set
				Peach Fruit Set, shucks off
			0.84	Weekly Rainfall
			10.64	Total Rainfall (Since 1 March, 2019)

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	<b>43 F</b>	<b>50 F</b>	<b># / trap / day (pheromone trap)</b>
5/28	776.9	417.9	Beginning degree day accumulations beginning 1 January, 2019
			0.0 Speckled Green Fruitworm (SGFW) (0/0)
			1.4 Redbanded Leafroller (RBLR) (11/9)
			6.4 Spotted Tentiform Leafminer (STLM) (50/40)
			1.7 Lesser Appleworm (LAW) (14/10)
			3.7 Oriental Fruit Moth (OFM) (18/34)
			8.4 Codling Moth (CM) (6/38) Biofix 5/17/19
			1.6 Black Stem Borer (BSB) (adults in trap) (12/10)
			0.0 Obliquebanded Leafroller (OBLR)
			0.9 Tufted Apple Budmoth (TABM) FIRST CATCH
			0.0 Sparganothis (SPAR)
			0.1 Dogwood Borer (DWB) FIRST CATCH
			0.1 Brown Marmorated Stink Bug (BMSB) (1/1)
			61.2 San Jose Scale (SJS) FIRST CATCH
			0.4 Pear Psylla 11 Eggs/25 Leaves
			1.3 Pear Psylla 33 Nymph/ 25 Leaves
			<b>Degree Day Models</b>
			<b>124 San Jose Scale model:</b> Accumulated DD <sub>50</sub> crawler emergence is predicted to occur approximately 260-360 DD <sub>50</sub> (5/20)
			<b>152 Codling Moth (CM) Biofix:</b> Accumulated DD <sub>50</sub> (5/17) first eggs are laid at about 50 DD, egg hatch at 220 DD June 2 <sup>nd</sup>
			<b>141 Plum Curculio (PC) PF Biofix</b> DD <sub>50</sub> (90% PF in Mc): 308 DD <sub>50</sub> Adults ovipositing (5/19), 308DD on June 10 <sup>th</sup>
			<b>Fruit injury UTC Ginger Gold</b>
			0% Plum Curculio (PC) injury
			3% Tarnished Plant Bug (TPB) injury
			9% Lepidopteran Injury
			1% European Apple Sawfly (EAS) injury
			<b>Fruit injury in UTC Red Delicious</b>
			25% Plum Curculio (PC) injury
			12% Tarnished Plant Bug (TPB) injury
			0% Lepidopteran injury
			0.26 Weekly Rainfall
			10.86 Total Rainfall (Since 1 March, 2019)

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