NOT FOR PUBLICATION

1981
Results of Fungicide Evaluations
for
Control of Apple and Prune Diseases

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1981 Apple Scab and Cedar-Apple Rust
Infection Periods and Fungicide Application Dates
Hudson Valley Laboratory, Highland, N.Y.

Spray Dates		McIntosh growth stage	Cumm. % scab spores discharged	Wetting Periods					Potential Infection Periods		
Protectant schedule	Modified schedule			Date	Hrs.	Split	Avg Temp	Inches	Scab 1°	Scab 2°	Cedar-Apple Rust
April 8			1.9								
April 16		½" Green		April 5-6	18		50	0.31	M		-
		TC	1.0	April 14-	16		46	0.64	-		Yes
April 22				April 17	9		54	0.03	-		Yes
		Pink	3.0								
	April 26			April 23-25	34	Y	46	0.62	M		Yes
				April 28	15.5		54	0.32	M		Yes
May 5				April 29	11		55	0.72	L		Yes
		Bloom	9.8	May 1	8		50	0.09	-		-
May 14	May 14			May 10-13	49	Y	59	3.27	H	H	Yes
May 27	May 27	PF; 3-4 term. lvs.	33.9	May 15-16	20		60	0.62	H	H	Yes
				May 29-30	30		68	0.47	H	H	Yes
			50.4	May 31	4		66	0.10	-	-	-
June 5	June 5			June 2	6		58	0.09	-	L	-
		12-15 term. lvs.; 1½" frt.		June 3-4	17		63	0.63	H	H	Yes
			67.4	June 9	8		68	0.15	-	M	-
				June 12-13	15		61	0.24	M	H	Yes
June 15	June 15			June 14	12		61	0.55	L	M	Yes
			87.5	June 14-15	11		61	0.06	L	M	Yes
				June 15-16	9		71	0.18	L	M	
				June 20-21	24		66	0.57	H	H	
				June 21-22	15		77	0.61	M	H	
				June 25-26	13	Y	73	0.28		H	
				July 1-2	18		70	0.56		H	
				July 2-3	16		70	1.13		H	
July 6	July 6			July 4-6	39	Y	69	1.31		H	
				July 18-19			70	0.02		H	

Spray Dates		McIntosh growth stage	Cumm. % scab spores DISCHARGED	Wetting Periods					Potential Infection Periods		
Protectant schedule	Modified schedule			Date	Hrs.	Split	Avg Temp	Inches	Scab 1°	Scab 2°	Cedar-Apple Rust
				July 20-21	29		71	0.63		H	
				July 21-22	16		70	0.24		H	
July 24	July 24										
				July 26-27	12		73	0.04		H	
				July 28-29	12		70	0.46		H	
				Aug 3-4	13		69	0.01		H	
				Aug 5	5		69	0.01		-	
				Aug 8-9	18		75	0.03		H	
				Aug 11-12	16		68	0.23		H	

1981 FUNGICIDE TRIAL
HUDSON VALLEY LABORATORY
HIGHLAND, NY

Material & Rates/100 gal[1]	Apple Scab: % Cluster lvs inf[2] McIntosh	Cortland	% Terminal leaves infected McIntosh: mid-season[3]	late season[4]	Cortland[5]
PROTECTANT SCHEDULE					
1. Check	9.4 b	28.6 f	28.9 d	50.4 c	65.9 c
2. Captan 50W 2 lb	0 a	0 a	.9 ab	Tr a	0 a
3. Benlate 50W 2 oz + Manzate 200 80W 12 oz	0 a	.4 ab	1.7 b	0 a	.1 a
4. Dikar 77W 2 lb (1.5 lbs after May 27)	Tr a	4.1 cd	.5 ab	Tr a	.3 a
5. Baycor 50W 2 oz	0 a	.6 ab	1.7 b	0 a	0 a
6. Baycor 50W 1 oz	.4 a	6.3 d	.9 ab	0 a	.1 a
7. Baycor 50W 1 oz + Agridex 1 pt	0 a	.4 ab	.2 ab	0 a	0 a
8. Baycor 50W 1 oz + Benlate 50W 2 oz	.1 a	5.9 d	1.2 ab	0 a	Tr a
9. DPX-3866 DF 1.5 oz + Manzate 200 80W 12 oz	0 a	.2 ab	1.6 b	0 a	0 a
MODIFIED SCHEDULE					
10. Baycor 50W 2 oz + Agridex 1 pt (applied 4/26, 5/14) SLJ 0312 50W 8 oz (5/27 thru covers)	0 a	1.0 ab	0 a	0 a	0 a
11. Baycor 50W 1 oz + Agridex 1 pt (applied 4/26, 5/14) SLJ 0312 50W 8 oz (5/27 thru covers)	0 a	1.3 bc	.2 ab	0 a	Tr a
12. Vangard 10W 2.5 oz	.5 a	6.3 d	.1 ab	Tr a	0 a
13. Dithane M-45 FM[6]	Tr a	15.8 e	7.6 c	14.6 b	13.4 b

[1]Treatments on the protectant schedule were applied April 8, 16, 22, May 5, 14, 27, June 5, 15, July 6 and 24.
Treatments 10, 11, and 12 were sprayed April 26, May 14, 27, June 5, 15, July 6 and 24 except that treatment 11 was not sprayed July 24 and was sprayed with 1 oz Baycor + 8 oz SLJ 0312 on June 15.

Other sprays applied to all treatments were Pydrin 2.4 EC 4 oz April 20, Fruitone-N 5 ppm + Sevin 50W 2 lb May 20, Phosphamidon 8E 4 oz June 10, Guthion 50W June 2, July 2, 16, and 31. Plictran 50W 4 oz was applied July 2 and 16 to all treatments except 4, 10, and 11.

[2]Data taken from 20 cluster/replicate (4 single-tree reps) on June 8 (McIntosh) and June 24 (Cortland).

[3]Data taken from 10 terminal/rep (4 single-tree reps) on July 7.

[4]Data taken from 20 terminal/rep (4 single-tree reps) on August 3.

[5]Data taken from 20 terminal/replicate (4 single-tree reps) on August 3.

[6]Applied at rate of 4.5 qt April 9 (GT), 37 fl. oz. April 22 (PK) and May 20 (PF), and 18 fl. oz. June 5, 15, July 6 and 24.

1981 FUNGICIDE TRIAL
HUDSON VALLEY LABORATORY
HIGHLAND, NY

Materials & Rates/100 gal[1]	Cedar Apple Rust			
	% Cluster lvs. inf.[2]		% Terminal lvs. inf.[3]	
	G. Del.	Rome	G. Del.	Rome
PROTECTANT SCHEDULE				
1. Check	34.1 c	76.9 c	19.9 e	9.9 d
2. Captan 50W 2 lb	11.9 b	50.2 b	11.9 d	1.3 bc
3. Benlate 50W 2 oz + Manzate 200 80W 12 oz	.3 a	.5 a	5.3 c	.3 ab
4. Dikar 77W 2 lb (1.5 lbs after May 27)	Tr a	Tr a	1.4 b	Tr a
5. Baycor 50W 2 oz	0 a	0 a	0 a	0 a
6. Baycor 50W 1 oz	0 a	0 a	0 a	0 a
7. Baycor 50W 1 oz + Agridex 1 pt	0 a	0 a	0 a	0 a
8. Baycor 50W 1 oz + Benlate 50W 2 oz	0 a	0 a	0 a	0 a
9. DPX-3866 DF 1.5 oz + Manzate 200 80W 12 oz	Tr a	.5 a	4.1 c	.8 bc
MODIFIED SCHEDULES				
10. Baycor 50W 2 oz + Agridex 1 pt (applied 4/26, 5/14) SLJ 0312 50W 8 oz (5/27 thru covers)	Tr a	0 a	0 a	Tr a
11. Baycor 50W 1 oz + Agridex 1 pt (applied 4/26, 5/14) SLJ 0312 50W 8 oz (5/27 thru covers)	0 a	0 a	0 a	0 a
12. Vangard 10W 2.5 oz	0 a	0 a	0 a	0 a
13. Dithane M-45 FM[4]	8.6 b	46.8 b	13.9 d	2.3 c

[1] Treatments on the protectant schedule were applied April 8, 16, 22, May 5, 14, 27, June 5, 15, July 6 and 24.
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Other sprays applied to all treatments were Pydrin 2.4EC 4 oz April 20, Fruitone-N 5 ppm + Sevin 50W 2 lb May 20, Phosphamidon 8E 4 oz June 10, Guthion 50W June 2, July 2, 16, and 31. Plictran 50W 4 oz was applied July 2 and 16 to all treatments except 4, 10, and 11.

[2] Data taken from 20 clusters/replicate (4 single-tree reps) June 29.

[3] Data taken from 20 terminals/replicate (4 single-tree reps) July 27.

[4] Applied at rate of 4.5 qt April 9 (GT), 37 fl. oz. April 22 (PK) and May 20 (PF), and 18 fl. oz. June 5, 15, July 6 and 24.

1981 FUNGICIDE TRIAL
HUDSON VALLEY LABORATORY
HIGHLAND, NY

Materials & rate/100 gal[1]	Mean % fruit infected with apple scab (and total number of fruit evaluated)[2] McIntosh	Cortland	Golden Del.	Rome
PROTECTANT SCHEDULE				
1. Check	52.4(14) b	43.5(84) b	28.4(49) c	36.2(96) c
2. Captan 50W 2 lb	.1(46)a	0 (87)a	0 (94)a	0 (177)a
3. Benlate 50W 2 oz +Manzate 200 80W 12 oz	Tr (21)a	0 (73)a	0 (84)a	.3(119)a
4. Dikar 77W 2 lb (1.5 lbs after May 27)	Tr (44)a	Tr (41)a	Tr (83)a	Tr (91)a
5. Baycor 50W 2 oz	.3(35)a	0 (74)a	0 (79)a	0 (154)a
6. Baycor 50W 1 oz	1.2(25)a	Tr (35)a	0 (81)a	.5(160)a
7. Baycor 50W 1 oz +Agridex 1 pt	1.1(32)a	0 (53)a	0 (97)a	0 (110)a
8. Baycor 50W 1 oz +Benlate 50W 2 oz	.2(26)a	0 (70)a	0 (68)a	0 (161)a
9. DPX-3866 DF 1.5 oz +Manzate 200 80W 12 oz	0 (49)a	Tr (73)a	0 (109)a	0 (190)a
MODIFIED SCHEDULE				
10. Baycor 50W 2 oz +Agridex 1 pt (applied 4/26, 5/14) SLJ 0312 50W 8 oz (5/27 thru covers)	0 (27)a	0 (68)a	Tr (68)a	0 (183)a
11. Baycor 50W 1 oz +Agridex 1 pt (applied 4/26, 5/14) SLJ 0312 50W 8 oz (5/27 thru covers)	2.0(49)a	Tr (28)a	.6(169)a	.1(157)a
12. Vangard 10W 2.5 oz	Tr (23)a	0 (108)a	.2(175)a	0 (231)a
13. Dithane M-45 FM[3]	.1(21)a	2.2(31)a	8.8(45) b	10.8(64) b

Numbers within columns followed by same letter are not significantly different (Duncan's Multiple Range Test $P \leq 0.05$).

[1]Treatments on the protectant schedule were applied April 8, 16, 22, May 5, 14, 27, June 5, 15, July 6 and 24.
Treatments 10, 11 and 12 were sprayed April 26, May 14, 27, June 5, 15, July 6 and 24 except that treatment 11 was not sprayed July 24 and was sprayed with 1 oz Baycor + 8 oz SLJ 0312 on June 15.
Other sprays applied to all treatments were Pydrin 2.4EC 4 oz April 20, Fruitone-N 5 ppm + Sevin 50W 2 lb May 20, Phosphamidon 8E 4 oz June 10, Guthion 50W June 2, July 2, 16 and 31. Plictran 50W 4 oz was applied July 2 and 16 to all treatments except 4, 10, and 11.

[2]Fruit data collected 6/23/81 during hand thinning of fruit and at harvest 9/3/81.

[3]Applied at rate of 4.5 qt April 9 (GT), 37 fl. oz. April 22 (PK) and May 20 (PF), and 18 fl. oz. June 5, 15, July 6 and 24.

1981 FUNGICIDE TRIAL
HUDSON VALLEY LABORATORY
HIGHLAND, NY

Material & rate/100 gal[1]	Mean % fruit infected and (total number of fruit evaluated)[2]				
	Cedar apple rust		Quince rust		
	Golden Delicious	Rome	Golden Delicious	Rome	Cortland
PROTECTANT SCHEDULE					
1. Check	29.0(49) c	45.1(96) d	6.2(49) b	10.9(96) b	15.9(84) c
2. Captan 50W 2 lb	.4(94)a	.9(177)ab	0 (94)a	0 (177)a	0 (87)a
3. Benlate 50W 2 oz +Manzate 200 80W 12 oz	0 (84)a	3.1(119) b	0 (84)a	0 (119)a	0 (73)a
4. Dikar 77W 2 lb (1.5 lbs after May 27)	.5(83)a	.9(91)ab	Tr (83)a	Tr (91)a	Tr (41)a
5. Baycor 50W 2 oz	0 (79)a	0 (154)a	0 (79)a	.1(154)a	0 (74)a
6. Baycor 50W 1 oz	0 (81)a	0 (160)a	0 (31)a	.7(160)a	Tr (35)a
7. Baycor 50W 1 oz +Agridex 1 oz	0 (97)a	0 (110)a	0 (97)a	1.1(110)a	0 (53)a
8. Baycor 50W 1 oz +Benlate 50W 2 oz	0 (68)a	0 (161)a	0 (68)a	0 (161)a	0 (70)a
9. DPX-3866 DF 1.5 oz +Manzate 200 80W 12 oz	1.3(109)a	.1(190)a	0 (109)a	.1(190)a	Tr (73)a
MODIFIED SCHEDULE					
10. Baycor 50W 2 oz +Agridex 1 pt (applied 4/26, 5/14) SLJ 0312 50W 8 oz (5/27 thru covers)	Tr (68)a	0 (183)a	Tr (68)a	0 (183)a	0 (68)a
11. Baycor 50W 1 oz +Agridex 1 pt (applied 4/26, 5/14) SLJ 0312 50W 8 oz (5/27 thru covers)	0 (169)a	0 (157)a	0 (169)a	0 (157)a	Tr (28)a
12. Vangard 10W 2.5 oz	0 (175)a	0 (231)a	.2(175)a	0 (231)a	0 (108)a
13. Dithane M-45 FM[3]	15.7(45) b	17.8(64) c	Tr (45)a	Tr (64)a	10.6(31) b

Numbers within columns followed by the same letter are not significantly different (Duncan's Multiple Range Test $P \leq 0.05$)

[1]Treatments on the protectant schedule were applied April 8, 16, 22, May 5, 14, 27, June 5, 15, July 6 and 24. Treatments 10, 11, and 12 were sprayed April 26, May 14, 27, June 5, 15, July 6 and 24 except that treatment 11 was not sprayed July 24 and was sprayed with 1 oz Baycor + 8 oz SLJ 0312 on June 15.

Other sprays applied to all treatments were Pydrin 2.4EC 4 oz April 20, Fruitone-N 5 ppm + Sevin 50W 2 lb May 20, Phosphamidon 8E 4 oz June 10, Guthion 50W June 2, July 2, 16, and 31. Plictran 50W 4 oz was applied July 2 and 16 to all treatments except 4, 10, and 11.

[2]Fruit data collected 6/23/81 during hand thinning of fruit and at harvest 9/3/81.

[3]Applied at rate of 4.5 qt April 9 (GT), 37 fl. oz. April 22 (PK) and May 20 (PF), and 18 fl. oz. June 5, 15, July 6 and 24.

1981 Airblast Fungicide Trials
Ulster County Community College
Stone Ridge, New York

Material & rate/acre[1]	Cluster leaf infections[2]					
	Cedar Apple Rust		Apple Scab		Frogeye leaf spot	
	% lvs. infected	lesions /leaf	% lvs. infected	lesions /leaf	% lvs. infected	lesions /leaf
1. Manzate 200 80W 6 lb	1.2 a	0.8 ab	11.6 b	1.0 ab	17.6 ab	1.7 a
2. Vangard 10W 10 oz	0.1 a	0.3 a	1.5 a	0.7 a	12.7 a	1.6 a
3. Baycor 50W 8 oz + Agridex 2 qt	0 a	0 a	2.7 a	0.7 a	16.9 ab	2.2 a
4. Check	11.9 a	4.2 b	26.5 c	1.4 b	29.2 b	2.4 a

Material & rate/acre[1]	% early terminal leaves infected[2]			% total terminal lvs infected with cedar apple rust[3]
	Cedar apple rust	Apple scab	Frogeye leaf spot	
1. Manzate 200 80W 6 lb	15.8 ab	38.4 b	26.0 a	33.9 b
2. Vangard 10W 10 oz	0.4 a	4.5 a	32.8 ab	0.1 a
3. Baycor 50W 8 oz + Agridex 2 qt	1.0 a	4.6 a	27.0 a	0 a
4. Check	25.7 b	56.8 b	46.6 b	54.3 b

Material & rate/acre[1]	% fruit infected[4]			
	Cedar apple rust	Quince rust	Apple scab	Blossom-end rot
1. Manzate 200 80W 6 lb	0.3 a	0.2 a	2.2 ab	5.3 b
2. Vangard 10W 10 oz	Tr a	4.4 b	0.6 ab	1.1 a
3. Baycor 50W 8 oz + Agridex 2 qt	0 a	0.5 a	0.3 a	1.1 a
4. Check	5.3 b	9.6 b	4.8 b	8.9 b

Numbers within columns followed by the same letter are not significantly different (Waller-Duncan's Exact Bayesian K-ratio LSD rule, $P \leq 0.05$).

[1]Treatments were applied in 100 gallons of water/A to three replicates of Golden Delicious and one replicate each of Lodi and Milton. Application dates were April 28, May 20, and June 3. Other materials applied were Imidan 50W 5 lb/A on trts. 1 and 4, Diazanon 50W 5 lb/A on trt. 2, and Thiodan 25W 5 lb/A on trt 3, all applied April 28; Sevin 50W 5 lb/A + Fruitone-N 5 ppm on May 20; and Imidan 50W 5 lb/A on June 3.

[2]Cluster leaf and early terminal leaf data were collected from 15 clusters and 15 terminals on each of two trees per treatment in each of five replicates on June 17 except that cedar apple rust was not evaluated in the Milton replicate.

[3]Terminal leaf data were collected from 20 terminals on each of two trees per treatment in each of five replicates on July 29 except that cedar apple rust was not evaluated in the Milton replicate.

[4]Fruit data were collected from 100 fruit from each of two trees per treatment in each of the three Golden Delicious replicates on July 31.

1981 FUNGICIDE TRIAL ON STANLEY PRUNES
HUDSON VALLEY LABORATORY
HIGHLAND, NY

Material & rate/100[1] gallons	Blossom Infection in Laboratory Test[2] Avg. rating on 0-5 scale	% blossoms with infected pistils	% isolations yielding[3] *Monilinia*	*Alternaria* Sp.
1. Check	4.3 c	70.4 c	68.8	0
2. Captan 50W 2 lb	3.2 b	25.4 ab	81.3	18.8
3. Benlate 50W 4 oz + Captan 50W 1 lb	2.2 a	6.5 a	6.3	68.8
4. Zineb 75W 2 lb (prebloom) Zineb 75W 1 lb + Captan 1 lb (white bud thru cover sprays) Captan 50W 2 lb (preharvest)	3.1 b	29.1 ab	93.8	6.3
5. Topsin M 4F 11.2 fl. oz.	1.9 a	10.3 a	75.0	0
6. Carbamate 76W 2 lb (prebloom) Carbamate 76W 1 lb + Kolospray 81W 3 lb Kolospray 81W 6.2 lb (preharvest)	3.8 bc	42.9 bc	100.0	12.5
7. Dichlone 50WP 4 oz (prebloom thru cover sprays) Kolospray 81W 6.2 lb (preharvest)	3.7 bc	56.2 c	100.0	12.5

Numbers within columns followed by same letter are not significantly different (Waller-Duncan's Exact Bayesian K-ratio LSD rule, $P \leq 0.05$).

[1] Treatments were applied April 16 (prebloom), 22 (whitebud), 28 (bloom), May 5 (petal fall), 14, 27, June 5 and 16. Other materials applied to all treatments were Guthion 50W 8 oz on May 5, 15, 26, June 5, July 2 and 16, and Plictran 50W 4 oz July 2.

[2] Data were taken from 40 blossoms/replicate (4 single-tree reps). Blossoms were collected April 24 two days and 0.6" rain after whitebud spray. Blossoms were placed in wet sand in moist chambers, were inoculated with brown rot conidia, and were rated April 28 on a scale of 0-5: 0 = no infection, 1 = brown petals, 2 = stamens infected, 3 = stamens and petals affected, 4 = pistil infected, and 5 = pistil infected and visible mycelia produced. Percent blossoms with infected pistils is computed from the numbers of blossoms in categories 4 and 5.

[3] Infected flower parts from four blossoms in each of four replicates (16 blossoms/treatment) were plated on potato-dextrose agar to determine the proportions of infections caused by *Monilinia*. Some blossoms yielded more than one species of fungus and some yielded nothing.

1980-81 Postharvest Fungicide Trial on Golden Delicious Apples

Material & rate/100 gal[1]	% fruit with Penicillium decay following 99 days in cold storage: day of removal	5 days later[2]	8 days later	% decays caused by benomyl-resistant isolate
1. Water check	95.1 g	95.1 fg	95.1 g	65.3 a
2. Benlate 50W 4 oz	84.4 def	84.4 de	84.4 ef	100.0 d
3. Benlate 50W 8 oz	92.6 fg	95.0 fg	95.0 g	100.0 d
4. Captan 50W 1 lb	90.1 efg	91.3 ef	92.2 fg	92.0 bc
5. Captan 50W 2 lb	76.1 d	82.9 de	83.9 ef	78.8 ab
6. Benlate 50W 4 oz + Captan 50W 1 lb	81.2 de	83.1 de	88.2 fg	97.7 cd
7. Benlate 50W 8 oz + Captan 50W 1 lb	73.5 d	74.5 d	75.4 e	100.0 d
8. Benlate 50W 8 oz + Captan 50W 2 lb	45.9 c	51.0 c	55.1 d	100.0 d
9. Vangard 10W 3 oz	8.7 b	13.8 b	15.7 b	-
10. Vangard 10W 6 oz	0 a	0 a	0 a	-
11. Rovral 50W 1 lb	11.3 b	24.3 b	33.7 c	-
12. Rovral 50W 2 lb	1.1 a	1.3 a	10.6 b	-
13. BFN-8206 4 oz	0.3 a	0.3 a	0.3 a	-
14. BFN-8206 8 oz	0 a	0 a	0 a	-

Means within columns followed by the same letter are not significantly different (Waller Duncan's Exact Bayesian K-ratio LSD Rule, $P \leq 0.05$).

[1] Golden Delicious apples harvested 8 Oct 1980 were punctured on a single face with three nails mounted in a cork, were dipped in a spore suspension for 15 seconds and allowed to dry, were dipped into treatments for 20 seconds, and were then placed on tray packs in a randomized-block design with four replicates of 25 apples in each treatment. The spore suspension contained 49,700 spores/ml equally divided between spores from a benomyl-sensitive and a benomyl-resistant isolate of P. expansum. Apples were kept in cold storage from 8 Oct to January 15.

[2] After removal from cold storage, apples were held at 16C for an additional 8 days.

[3] P. expansum was reisolated from 15 decayed fruit per replicate (60 fruit/treatment) and spores were streaked on potato-dextrose agar ammended with benomyl at 250 ug/ml. to determine the percentage of decays caused by the benomyl-resistant isolate.

APPLE SCAB CONTROL WITH
BAYCOR AND VANGARD IN LARGE PLOTS

Hudson Valley Laboratory, Highland, NY

Orchard	Material & rate/100 gal[1]	% Cluster leaves infected[2]	% Terminal lvs. infected[2]	% Fruit infected[2]
Pomology Orchards				
1. Eastern part of southern-most double-row McIntosh	Baycor 50W Agridex (2 oz & 1 pt)	3.78 ± 0.44	0.95 ± 1.27	1.75 ± 1.71
2. Western 15 trees in southern-most double-row McIntosh	Baycor 50W & Benlate 50W (1 oz & 2 oz)	7.58 ± 1.50	1.08 ± 1.26	1.50 ± 1.29
3. Broken double-row McIntosh	Vangard 10W	4.75 ± 0.62	1.3 ± 0.26	2.25 ± 1.71
4. Scab-resistance planting	CHECK	11.58 ± 1.00	97.38 ± 0.97	89.35 ± 4.3
Entomology Orchard	Baycor 50W & Agridex (8 oz & 2 qt/A)	0.50 ± 0.44	0	2.13 ± 1.03

[1]Materials in the pomology orchards were applied dilute with a handgun on May 5, 14, June 2, 15, and July 6. The entomology orchard was sprayed April 28, May 21, June 2, and June 9 using 100 gal spray per acre with an airblast sprayer.

[2]Twenty clusters/tree, 20 terminals/tree, and 100 fruit/tree were rated June 25, Aug. 19, and Sept. 4, respectively, on four trees in each of the pomology plots and on 3 McIntosh trees in the entomology plots.