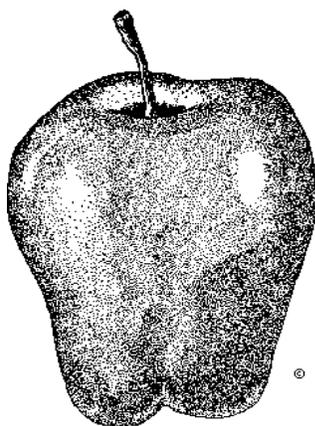


# PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

SEPTEMBER 3, 1996

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## Apple Maturity Alert in Southern New Jersey

*Jerome L. Frecon, Gloucester County Agricultural Agent and  
Robert Belding, Ph.D., Pomology*

**R**ed Delicious apples have and are being sampled for sugar and firmness. Firmness levels have been acceptable but, sugar levels need to increase. We anticipate these levels being reached in most southern New Jersey counties beginning the week of September 9, 1996.

We recognize that many variables affect the maturity of Red Delicious apples. These include not only the cultivar of Red Delicious, but also rootstock, tree management, soil environment, micro climate, health, and vigor.

Since the concern over premature harvest was based on picking double and triple red cultivars of standard bearing Delicious, and the first spur types; Starkrimson and Redspur on seedling, and MMIII rootstock, we sampled fruit from orchards of these cultivars. We recognize the use of ethephon, and early coloring and early maturing cultivars on very dwarf and dwarfing rootstocks, may hasten and advance maturity of Red Delicious. □

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## Weather Summary for the Week Ending 8am Monday 9/2/96

*Keith Arnesen, Agricultural Meteorologist*

**T**emperatures averaged above normal. Extremes were 90 degrees at Freehold and Canoe Brook on the 27th and 49 degrees at Newton on the 1st. Weekly rainfall averaged 0.00 inches north, 0.07 inches central, and 0.07 inches south. The heaviest 24 hour total was 0.42 inches at Pemberton on the 27th to 28th. Estimated soil moisture, in percent of field capacity, this past week averaged 64 percent north, 59 percent central and 38 percent south. Four inch soil temperatures averaged 70 degrees north, 72 degrees central and 72 degrees south.

WEATHER CONTINUED ON PAGE 3

# Fruit IPM - Week Ending 9/6/96

Dean Polk, IPM Agent - Fruit

## ◆ Apple

✓ **Spotted tentiform leafminer (STLM):** Treatments for third brood miners are not suggested at this time unless mines are above treatment levels on late season varieties, eg. those varieties that will be picked in late September to the middle of October (mostly Stayman and Rome). Late harvested varieties can be exposed to the full third brood and part of a fourth brood, and therefore will be affected more than early to mid season varieties.

✓ **Summer rots (White rot and Black rot):** A number of farms have these diseases starting to show on maturing fruit. While there is not much that can be done at this point, fungicide schedules should be maintained until the preharvest interval. Captan, Benlate, and Ziram all have a 14 day PHI.

✓ **Tufted apple budmoth (TABM):** Trap counts have decreased in most blocks, with some larvae present. Spraying for this pest in southern counties should be over at this time. In most cases, rescue treatments after larvae are present has not been worth the effort. If trap counts are high, treatments in mid to northern counties may continue into the second week of September - See degree day chart below.

✓ **Codling moth (CM):** Trap counts remain high and above treatment levels in blocks which are near abandoned and wild sites. Insecticides for CM should continue in these areas.

## ◆ Peach

✓ **Oriental fruit moth (OFM):** Trap counts indicate that populations should still be treated in very late varieties ('Parade'). Post harvest samples from several farms have shown low levels of OFM infested fruit.

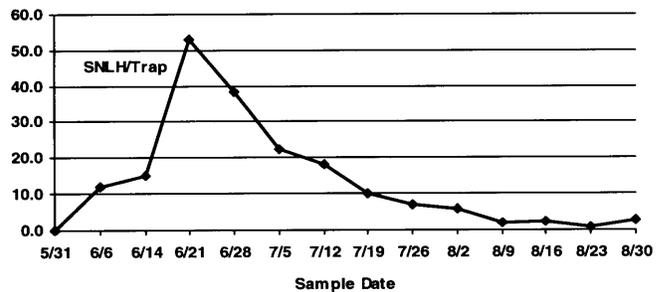
✓ **Tufted apple budmoth (TABM):** No additional treatments are needed for this pest in southern counties. While TABM is still laying eggs in northern counties, it has not been a peach pest in these counties. Therefore, no additional treatments are needed in these areas.

## ◆ Blueberry

✓ **Sharpnosed leafhopper:** Trap catches indicate that second generation adults are starting to fly.

The graph of abandoned site SNLH catches shows a slight increase in trap levels averaging just under 3 adults per trap (compared to approx. 1 per trap last week). Some locations in the Indian Mills and Sheep Pen Hill areas show levels in excess of 15 adults per trap. This cannot yet be defined as a flight peak, but we are getting close to a time when growers will want to treat for this insect. □

Blueberry - SNLH Trap Record 1996 Abandoned Sites



Insect Degree Day Accumulations as of 9/1							
Insect	Site & County						
	Biofix Date plus Degree Days Since Biofix						
	Bridgeton Cumb.	Hammonton. Cam.	Hardingville Glou.	Richwood Glou.	Princeton Mercer	Oldwick Hunt.	Morristown Morris
TABM <sub>45</sub> 2nd Gen	5/4 - 3010 Hit 2228 Aug 4-1st trt Hit 2415 Aug 11-2nd trt Hit 2605 Aug 18-3rd trt Hit 2795 Aug 25-4th trt	5/3 - 3001 Hit 2228 Aug 4-1st trt Hit 2415 Aug 11-2nd trt Hit 2605 Aug 18-3rd trt Hit 2795 Aug 25-4th trt	5/2 - 3026 Hit 2228 Aug 4-1st trt Hit 2415 Aug 10-2nd trt Hit 2605 Aug 18-3rd trt Hit 2795 Aug 24-4th trt	5/2 - 3028 Hit 2228 Aug 4-1st trt Hit 2415 Aug 10-2nd trt Hit 2605 Aug 18-3rd trt Hit 2795 Aug 24-4th trt	5/13 - 2836 Hit 2228 Aug 10-1st trt Hit 2415 Aug 18-2nd trt Hit 2605 Aug 24-3rd trt Hit 2795 Aug 31-4th trt	5/20 - 2678 Hit 2228 Aug 16-1st trt Hit 2415 Aug 23-2nd trt Hit 2605 Aug 29-3rd trt Predict 2795 Sept 6-4th trt	5/23 - 2543 Hit 2228 Aug 21-1st trt Hit 2415 Aug 27-2nd trt Predict 2605 Sept 3-3rd trt Predict 2795 Sept 10-4th trt
All reported accumulations based on Skybit Inc. data with some ground verification. OFM base = 45, max = 90, TABM base = 45, max = 91, CM base = 50, max = 88.							
Spray targets based on: OFM: 200 °D after biofix and again 200 °D later (first generation only)							
TABM: (A.M. sprays) 490, 625, 763, 898 - 1st gen. and 2228, 2415, 2605, 2795 °D after biofix - 2nd gen.							
CM: 250 °D after biofix + 2 - 3 weeks later; 2nd generation at 1250 - 1300 °D after biofix + another spray 14 to 21 days later.							

### Insect Trap Captures

Week Ending	6/21	6/28	7/5	7/12	7/19	7/26	8/2	8/9	8/16	8/23	8 / 30
<b>Tree Fruit - Southern Counties</b>											
RBLR	26.8	54.8	36.7	20.3	9.7	5.3	10.9	21.7	20.5	29.1	20.1
STLM	1876	1734	1071	854	1039	1476	1341	959	756	612	343
TABM-A	59.4	37.4	10.7	4.8	6.7	19.1	21.0	21.3	24.5	19.3	12.9
CM	4.3	1.4	0.2	0.3	1.2	3.2	2.0	2.1	1.1	0.8	1.3
AM	1.0	0.0	0.1	0.0	0.13	0.0	0.1	0.1	0.1	0.0	0.1
OFM	8.4	8.0	3.7	2.9	5.9	5.6	3.1	3.0	4.3	9.8	9.9
TABM-P	46.3	30.0	8.6	9.7	7.7	20.0	30.6	19.6	19.6	12.0	21.7
LPTB	102.2	55.1	36.8	30.7	22.5	12.4	17.4	23.6	23.6	43.7	67.3
PTB	3.5	7.0	3.2	3.5	3.4	5.8	3.9	3.9	3.9	4.1	5.0
<b>Tree Fruit - Northern Counties</b>											
RBLR	9.8	25.5	19.2	8.4	0.4	17.6	1.5	1.4	8.5	5.8	
STLM	1085	932	794	627	557	620	787	1302	1393	659	
TABM-A	32.2	25.5	10.0	3.2	1.1	1.1	0.2	1.6	2.0	0.5	
CM	11.5	7.5	5.1	2.4	6.1	7.6	4.7	9.3	7.9	1.7	
AM	--	.04	.02	0.7	0.4	0.0	0.3	0.1	0.2	0.1	
OFM	9.5	6.3	4.9	4.3	3.2	3.6	3.4	7.2	4.9	3.8	
TABM-P	52.0	3.7	20.0	10.0	0.0	0.0	0.0	0.2	2.2	0.8	
LPTB	74.8	30.4	9.5	9.8	7.0	18.7	3.7	8.0	4.4	5.1	
PTB	13.2	16.3	8.0	6.2	4.1	9.3	5.5	7.0	6.6	1.6	
<b>Blueberry - Atlantic County</b>											
RBLR	178	141	6.5	45.4	16.9	8.4	6.4	5.1	5.1	3.0	7.8
OBLR	31.0	15.0	2.3	0.8	0.7	3.0	3.5	0.4	0.7	0.5	0.6
CBFW	1.2	0.02	0.08	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SNLH	2.3	2.1	1.2	0.8	0.2	0.3	0.4	0.5	0.1	0.2	0.4
BBM	0.2	0.16	0.2	0.3	0.1	0.1	0.2	0.4	0.6	0.5	0.6
OB	403	831	774	1451	1173	450	182	71	36	29	9.3
<b>Burlington County</b>											
RBLR	41.5	96	73.4	45.0	9.9	3.1	1.2	5.0	6.9	8.0	21.0
OBLR	46.5	21.4	7.0	1.0	0.3	0.9	0.6	0.5	2.0	1.3	2.8
CBFW	2.9	0.8	0.0	0.1	0.0	.08	0.0	0.0	0.0	0.0	0.0
SNLH	7.9	7.5	1.8	1.6	0.9	0.1	0.6	1.9	0.6	0.3	5.3
BBM	0.0	0.11	0.2	0.2	0.4	0.3	0.5	2.6	0.3	0.2	0.1
OB	--	509	449	840	663	356	112	51	37	14.6	4.9
<b>Abandoned Fields (both counties)</b>											
RBLR	38.3	70.0	47.0	34.0	10.0	8.0	0.5	5.0	0.8	1.5	7.0
OBLR	59.0	34.5	15.5	4.0	1.0	1.5	2.0	0.5	0.8	0.5	1.8
CBFW	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SNLH	53.2	38.5	22.5	18.3	10.0	6.9	6.0	1.9	2.2	0.9	2.7
BBM	0.0	3.2	6.8	37.0	47.0	19.5	8.3	2.6	1.2	2.1	1.0
OB				435	191	122	51	51	4.0	6.0	6.0

Insect key: RBLR = redbanded leafroller, STLM = spotted tentiform leafminer, TABM = tufted apple bud moth, CM = codling moth, AM = apple maggot, OFM = oriental fruit moth, LPTB = lesser peachtree borer, PTB = peachtree borer, OBLR = oblique banded leafroller, CBFW = cranberry fruitworm, SNLH = sharpnosed leafhopper, BBM = blueberry maggot, OB = oriental beetle.

### WEATHER CONTINUED FROM PAGE 1

The following table contains meteorological information since the start of the growing season March first. The table is updated each Monday and the following is an explanation for each column.  
 Week=total rainfall for the previous 7 days ending Monday morning  
 Total=total rainfall since March 1st  
 Dep=departure from normal of rainfall since March 1st

A negative sign indicates below normal and no sign indicates above normal.  
 Mx=highest temperature for that 7 day period  
 Mn=lowest temperature for that 7 day period  
 Avg=average temperature for that 7 day period  
 Dep=departure from normal of the average temperature for that 7 day period  
 Total=total number of growing degree units since March 1st  
 Dep=departure from normal of growing degree units  
 %fc=percent of field capacity (soil moisture)☐

Weather Summary for the Week Ending 8am Monday 9/2/96										
Weather Stations	R a i n f a l l			Temperature			Gdd Base50		Mon	
	Week	Total	Dep	Mx	Mn	Avg	Dep	Tot		Dep
Belvidere Bridge	.00	25.38	.71	85	52	70.	3	2144	-79	52
Canoe Brook	.00	27.32	1.47	90	50	72.	5	2516	275	63
Charlotteburg	.00	31.47	5.36	87	51	69.	5	2161	381	50
Flemington	.00	30.71	5.84	85	53	70.	2	2331	32	61
Long Valley	.00	27.16	.24	83	52	68.	3	2107	124	58
Newton	.00	28.57	4.44	85	49	67.	2	2109	81	68
Freehold	.00	24.63	.37	90	55	71.	2	2369	-78	64
Long Branch	.00	23.14	-1.47	85	58	71.	2	2358	-12	51
New Brunswick	.00	30.33	5.81	87	56	72.	0	2461	-96	62
Pemberton	.42	32.37	7.43	89	56	72.	3	2739	243	48
Toms River	.00	26.84	1.71	89	55	70.	0	2381	25	27
Trenton	.00	35.83	12.58	88	55	72.	2	2467	-189	51
Cape May Court House	.00	27.77	6.04	85	60	72.	0	2526	178	23
Downstown	.04	24.57	1.60	87	56	72.	1	2645	-17	35
Glassboro	.13	29.82	5.87	85	61	74.	3	2746	106	34
Hammonton	.00	24.33	.38	87	57	72.	2	2669	26	30
Pomona	.01	24.87	2.79	84	57	71.	2	2512	48	30
Seabrook	.32	27.89	5.93	86	58	73.	2	2692	15	45
Atlantic City Marina	.00	22.28	1.05	84	55	70.	0	2383	-22	23
Woodstown	.13	26.85	3.25	87	55	72	Na	2794	na	na

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