

PLANT & PEST ADVISORY

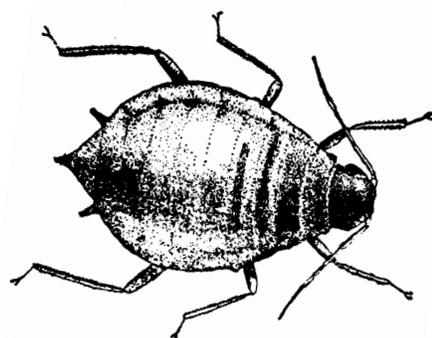
FRUIT EDITION \$1.50

JUNE 11, 1996

Fruit IPM

Week Ending 6/14/96

Dean Polk, IPM Agent - Fruit



◆ Apple

✓ **Spotted tentiform leafminer (STLM):** In southern counties trap captures have increased this past week as the older tissue feeding larvae pupate, and start to emerge as adults. This is the start of the 2nd adult flight. In northern counties, sap feeders and early tissue feeders are present in leaves. The 2nd flight has not started in those areas. Four flights may occur in southern counties, with a partial fourth flight in northern counties. As this flight increases, eggs will be laid on the undersides of leaves and new larvae will emerge to start a second set of mines.

✓ **Tufted apple budmoth (TABM):** Egg laying and hatch is well underway. Hatched egg masses were seen for the past 2 weeks in Gloucester County. The 2nd alternate middle sprays are due in southern counties (6/8-9). A total of 4 alternate middle applications are suggested for each of 2 generations. A 3rd application will be due on 6/12-14. First treatments will be due in Hunterdon and Morris Counties on 6/12, a 2nd treatment on 6/15-16, and a 3rd treatment on 6/21-22. Please keep in mind that this is mainly a problem in the southwestern counties, but still present other counties. This means that Guthion and other standard OP insecticides have done an adequate job in "non-problem" counties during past years. Where TABM pressure is greatest is where growers need to consider "extra" control measures. These include increased spray volume, decreased spray intervals, use of Lorsban or PennCap (1st generation), and use of Lannate combinations and even pyrethroids for the 2nd generation

✓ **Codling moth (CM):** The second of 2 treatments is due in southern counties by mid week, and in northern counties by the end of next week. Please see degree day table below.

✓ **Rosy apple aphids (RAA):** RAA winged forms are present as aphids start to leave apple trees and make their way to alternate summer hosts. Where Cygon @ 3pt/A was used no live aphids were seen.

✓ **Apple aphids:** Infestation levels have increased this past week. Most trees have about 40% of growing terminals infested with young colonies. One site had up to 85% of the terminals infested. These are small colonies at the present time with no visible honeydew. Treatments are not suggested for a full crop unless at least 50% of the terminals are infested with healthy colonies. More aphids should be tolerated in minimal crop situations.

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SEE IPM ON PAGE 2

◆ Peach

✓ **Oriental fruit moth (OFM):** Most 1st brood OFM are in the larval stage, with adult activity being very light. This is not a pest on most farms at the present time. Unless trap counts exceed 6 to 8 moths per trap per week, no treatments should be needed (see last newsletter).

✓ **Catfacing insects:** No fresh injury was seen this past week, although some sweep samples have shown rather high numbers of 14 to 25 tarnished plant bugs (adults and nymphs) per 50 sweeps. Older injury appears as callused over feeding scars, and does not exceed 1 to 1.5% where found.

✓ **Tufted apple budmoth (TABM):** Egg laying and hatch continue. Therefore, alternate middle treatments should be timed to coincide with the degree day model at 490, 625, 763, and 898 °D after first catch. These treatments may be 5 to 7 days apart depending upon the temperature. See degree day table below and treatment suggestions in last newsletter.

✓ **Lesser Peachtree borer (LPTB):** LPTB larvae can be found just under the bark surface in Cytospora cankers. They overwinter in the larval stage, and complete their development and emerge as adults during May through June and into early July. Trap counts show a high degree of adult activity, but examinations of cankers also show considerable numbers of mature larvae almost ready to pupate. There is a second generation that emerges during August through early September. Past research has shown that the best control is obtained with handgun dilute sprays applied during early June and again 2 weeks later. Timing should be a week to 10 days later in northern counties. Control is obtained ONLY with a handgun. Airblast treatments are not satisfactory. If you are planning to use an airblast application for the first generation treatments, then you are probably better off not spending the extra money, and instead waiting until it is time to treat the second generation in early September when there is more time to use a handgun. Materials and rates for June sprays include Thiodan @ 1.5 lb/100 gal and PennCap-M @ 2 pt/100 gal. Pyrethroids (Ambush, Pounce and Asana) are also effective but are not suggested for use during June, since they will kill mite predators and flare mite populations.

✓ **Peachtree Borer (PTB):** PTB adults are starting to emerge. This is the "other borer" not associated with Cytospora canker. Larvae of this insect can be found at the base of the tree from a few inches above to a few inches below ground level. Larvae may also be present on major structural roots. There is one generation per year. Although the flight has started, most of the emergence, mating, egg laying and hatch occurs during August and early September. Handgun treatments are advised in the Fall. One 4 yr. old block was seen in Gloucester County which had only been treated with an airblast sprayer. Almost all of the trees were infested to such a level that most of them will die this season.

✓ **Bacterial spot:** Infections are common in sensitive peach varieties and are heavier in some nectarine blocks. Both foliar and fruit infections are present. When bacterial spot infects the fruit this early in the season, one needs to be aware of an increased risk from brown rot. With frequent rains and high humidity, nectarines may have to be treated on a tighter schedule (closer than every 7 days).

✓ **Rusty spot:** Only low levels of infested fruit have been seen. Many pathologists attribute rusty spot symptoms to the same pathogen that causes powdery mildew in apples. Most likely, the timing of infections is similar, as are the environmental conditions under which infections take place. Years in which we receive very little rain during the first month after petal fall are usually favorable seasons for rusty spot and the disease is easily found. So far this has not been one of those years and infestations are very light. Those growers who have applied Nova for rusty spot control can discontinue its use at this time.

◆ Blueberry

✓ **Sharpnosed leafhopper:** The first trap captures of this insect were seen this past week in both Atlantic and Burlington Counties. While catches averaged from .5 to .9 leafhoppers per trap in commercial fields, one commercial operation in Atlantic County had from 1 to 10 adults per trap. An abandoned site in Burlington County had 12 adults per trap. While these are only the first counts that represent the first generation, initial levels are higher than the peak numbers seen during some recent previous seasons.

✓ **Cranberry fruitworm (CBFW):** This is the 3rd week of adult emergence, and activity has increased considerably, especially in Burlington County. One farm had 56 moths per week captured, compared to 0 to 1 on some other farms. Since egg laying is well underway, treatment for this pest is suggested at the present time. Where pressure is highest, 2 sprays applied 10 days to 2 weeks apart may be needed.

✓ **Redbanded leafroller (RBLR), Obliquebanded leafroller (OBLR), and Green fruitworm (GFW) and Gypsy moth (GM):** Sporadic levels of gypsy moth and green fruitworm are present in only 4% of the areas sampled. Post pollination treatments of Guthion, Imidan, Diazinon or Lannate will control these insects.

✓ **Aphids:** Aphid levels have increased slightly on most farms. While levels on most farms average close to 1% of terminals infested, some fields in Atlantic County showed up to 15% of terminals infested.

✓ **Disease:** Both *Botryosphaeria* cankers and *Botrytis* fruit blight have been seen in several locations. Chemical controls are not satisfactory for control of these diseases (wood phase). However, both Benlate @1lb/A (21 day PHI) and Captan @ 5 lb/A (50W), 3.1 lb/A (80W) or 2.5 qt/A (4L) (0 day PHI) are labelled for control of *Botrytis* fruit blight.

◆ **Insect Trap Captures**

Week Ending	5/10	5/17	5/24	5/31	6/7
Tree Fruit - Southern Counties					
RBLR	13.7	4.0	1.8	0.5	0.5
STLM	1334	744	276	76.6	283.1
TABM-A	5.9	5.8	21.5	29.0	76.3
CM	0.4	1.7	7.5	6.3	1.4
AM	—	—	—	—	—
OFM	21.4	6.6	11.9	10.7	2.7
TABM-P	2.2	7.4	48.7	70.1	78.9
LPTB	1.8	20.8	96.3	67.1	44.7
PTB	—	—	2.0	0.02	0.2
Tree Fruit - Northern Counties					
RBLR	0.21	20.0	17.5	4.0	3.1
STLM	450	199	119	43.9	13.1
TABM-A	0.03	0.5	3.3	10.5	12.6
CM	0.21	0.3	6.1	8.4	8.0
AM	—	—	—	—	—
OFM	11	3.2	7.8	4.8	6.4
TABM-P	0.0	0.5	0.4	15.2	2.2
LPTB	0.0	0.4	12.4	13.3	28.4
PTB	—	—	1.9	3.2	7.0

Blueberry - Atlantic County

RBLR	24	4.1	8.6	0	0.2
OBLR	.02	0.4	0.4	1.6	13.3
CBFW	0.0	0.0	0.5	1.5	2.4
SNLH	—	—	—	—	0.9
BBM	—	—	—	—	—

Burlington County

RBLR	14.7	2.8	0.7	0.3	0.0
OBLR	0.0	0.0	0.1	0.6	10.3
CBFW	0.0	0.0	0.6	2.6	21.9
SNLH	—	—	—	—	0.5
BBM	—	—	—	—	—

Abandoned Fields (both counties)

RBLR	12	1.5	0.8	0.0	0.0
OBLR	0.0	0.0	0.0	0.5	3.0
CBFW	0.0	0.0	0.0	0.3	1.5
SNLH	—	—	—	—	12*
BBM	—	—	—	—	—

*SNLH recorded in Burlington Co. site only as of 6/10

Insect Degree Day Accumulations as of 6/9

Insect	Site & County Biofix Date plus Degree Days Since Biofix
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	Bridgeton Cumb.	Hammonton. Cam.	Hardingville Glou.	Richwood Glou.	Princeton Mercer	Oldwick Hunt.	Morristown Morris
OFM ₄₅	4/20 hit 200 on 5/2 hit 400 on 5/19	4/5 hit 200 on 4/27 hit 400 on 5/13	4/19 hit 200 on 5/1 hit 400 on 5/18	4/17 hit 200 on 5/1 hit 400 on 5/18	4/19 hit 200 on 5/3 hit 400 on 5/19-20	4/22 hit 200 on 5/9 hit 400 on 5/22	4/24 hit 200 on 5/14 hit 400 on 5/24
TABM ₄₅	5/4 - 627 hit 490 on 6/4 predict 625 on 6/9 & 763 on 6/14	5/3 - 639 hit 490 on 6/3 hit 625 on 6/9 predict 763 on 6/14	5/2 - 658 hit 490 on 6/2 hit 625 on 6/8 predict 763 on 6/12	5/2 - 661 hit 490 on 6/3 hit 625 on 6/8 predict 763 on 6/12	5/13 - 517 hit 490 on 6/9 predict 625 on 6/13 & 763 on 6/18	5/20 - 423 predict 490 on 6/12, 625 on 6/16 & 763 on 6/22	5/23 - 321 predict 490 on 6/15 & 625 on 6/21
CM ₅₀	5/8 - 423 hit 250 on 5/28	5/8 - 425 hit 250 on 5/28	5/8 - 430 hit 250 on 5/28	5/8 - 432 hit 250 on 5/28	5/11 - 414 hit 250 on 5/31	5/20 - 319 hit 250 on 6/7	5/20 - 309 hit 250 on 6/7

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 and again 2 - 3 weeks later.

Blueberry Insect Update

Sridhar Polavarapu, Ph.D., Entomology and IPM

✓ **Blueberry maggot (BBM):** Yellow sticky-traps have not indicated the onset of BBM adult activity so far. We expect adult emergence in the Whitesbog, Burlington County area in the following 4-7 days.

The adult BBM is somewhat smaller than a housefly and is readily recognized by black bands across the wings and white lines on the abdomen. BBM overwinters as a pupa buried in the soil below blueberry bushes. Adults emerge over a 4-5 week period. Females begin to lay eggs 7-10 days after emergence. Eggs are laid just beneath the ripe or ripening blueberries. The maggots mature in about 20 days under field conditions and then drop to the ground to pupate. Berries infested with BBM larval stages can be readily recognized by their soft and mushy appearance.

BBM puparia in the soil are very susceptible to desiccation. Survival of the puparia is affected by several abiotic factors such as soil temperature in July and August, soil moisture, and overwintering temperatures (during December to February). Because soil temperature and soil moisture are important factors in BBM survival, bush height, amount of shade provided by the bush, ground cover, and soil characteristics (such as organic matter content, percentage of sand etc.) immensely affect the survival of BBM. Research conducted at North Carolina State University by Dr. John Meyer indicated that the occurrence of BBM in non-irrigated, commercial blueberry fields can be predicted based on bush height and percentage of shade. It is conceivable that the very low populations of BBM observed in some Atlantic County fields, where shorter varieties such as 'Dukes' are grown on light sandy soils with very little shade and almost no ground cover, may be attributed to the desiccation of puparia in the soil.

Wild and abandoned blueberry fields also serve as a source of BBM infestations. Adult flies migrate into commercial fields from wild and abandoned sites throughout the summer. Adult activity can be monitored by placing yellow sticky-traps. These traps are baited with ammonium acetate and protein hydrolysate to attract adult BBM flies. The traps should be folded at the center with the yellow-side facing out in a 'V' shape and should be hung about 4-6 inches from the canopy. Any branches that are present around the trap should be removed so that the trap is clearly visible to the insects. Traps should be hung from bushes that have a good number of maturing berries. Ideally, 3-5 traps per 5-10 acres of blueberries should be placed around the field perimeter especially near the woods.

For effective control of BBM, insecticides should be

applied after most flies have emerged but before any egg laying has occurred. Insecticides will not offer any control if eggs are already laid in the berries. Because the adult female flies require about 10 days to mature and initiate egg laying, insecticide treatments are recommended 10 days after the first adult capture in the yellow sticky-traps. Subsequent treatments are recommended at 10 day intervals, only if adults captures continue in the yellow sticky-traps. This year we are recommending insecticide treatments exclusively for controlling BBM, only if a minimum of **one** BBM fly is captured in the yellow sticky-traps. Insecticide options for controlling BBM include Diazinon, Imidan, Lannate, Sevin, and Malathion. Please check the first issue of the newsletter for information on re-entry times and pre-harvest intervals.

✓ **Sharpnosed leafhoppers (SNLH):** The first adult SNLH has been captured this week in both Burlington and Atlantic Counties. Trap catches are very low and represent only the beginning of the first generation flight. Peak activity is not expected for at least two more weeks. Rouging of bushes showing symptoms of blueberry stunt disease should be completed by now. Remember to spray the diseased plant with Malathion or Sevin before rouging it out.

✓ **Aphids:** Aphid populations have slightly increased over the last week. In most locations the populations are generally lower than levels seen in the last two years. Insecticide applications made for controlling Cranberry fruitworm will also control aphid populations.

✓ **Cranberry fruitworm (CBFW):** Growers in most locations have already applied an insecticide treatment to control CBFW. Pheromone trap catches in most fields are beginning to decline. Trap catches in many fields have remained very low; in these fields, one insecticide application may provide adequate control of CBFW.

✓ **Leafrollers:** Pheromone trap catches of Oblique-banded leafrollers are increasing. Larvae will begin to appear very soon. Larvae in this second generation can also feed on berries. Most of the leafroller larvae that are present in the field at this time are Redbanded leafroller larvae. The threshold for leafrollers and Spanworms, Gypsymoth and Cutworms is **one** larva per 100 fruit, flower or leaf clusters. □

Update on Tree Fruit Crop Conditions in Southern NJ

Jerome L. Frecon, Gloucester County Agricultural Agent

◆ Apples

The apple crop on the approximately 1800 acres of apples in the southern part of the state is light to moderate. Red Delicious set in most orchards is light with excellent fruit size. Young blocks of spur type varieties are heavier than older spur blocks which are mostly Starkrimson or Bisbee. Bloom was light to non-existent on trees with a heavy crop last year. Those trees with a decent bloom did not set up heavily.

Golden Delicious fruit set was variable. Many trees had very little bloom but those with a good bloom set a nice crop with little need for chemical thinning.

Jerseyred and Rome have generally a light crop. While trees were heavily laden with flowers in some orchards, fruit set was poor in some blocks. Other blocks had a light to moderate set with fruit that is sizing very nicely.

Early blooming varieties like Macintosh, Paulared and Empire have a fair crop of fruit. Set was better on these varieties than others.

Of the few acres of Gala, Fuji, Jonagold, Mutsu, Stayman and Winesap, fruit set was light. Bloom was variable. It is obvious we have much to learn about getting Gala and Fuji to bloom and set annually. Jonagold, Mutsu, Stayman and Winesap are all triploid and even where bloom was decent they didn't set up heavily.

Why do we have such a light crop? We had a very dry growing season in 1995 particularly at the time flower buds were being initiated. From January - September 1, 1995 we were approximately 20 inches below normal in precipitation. The soil was very dry at deeper root feeding levels because of light precipitation during the winter of 1994-95. We had many trees with a heavy crop of fruit last year. Most apple orchards never get irrigated in southern New Jersey and are planted on the poorer soils for tree fruit. Peaches get high priority. Trees that did bloom had weak flowers particularly on Jerseyred and Rome. These flowers were not strong enough to set fruit. Other factors include: It was very hot during the peak bloom of some of the earlier blooming varieties. Ninety degree temperatures inhibit fruit set. Some orchards had inadequate pollinating insects and particularly during later bloom. Bees were not flying due to cooler windy weather some days during bloom. We had a frost on a few sites. We had a short bloom on some varieties which increases pollen tube abortion. Red Delicious flowers require twice as many bee visits as other varieties because of their spreading flower structure. Thus they were harder to pollinate.

Flower overlap was not excellent between pollinating varieties and pollen receiving varieties. Some of the apple orchards had a heavy bloom of ground cover species that attract bees that pollinate apple flowers.

◆ Peaches

The peach crop looks excellent. Fruit set was not as heavy relative to bloom but most varieties have a crop that is now being thinned. June drop is underway but is not heavy enough to reduce the crop significantly. Two blocks that I have observed have some frost injury. A few other sites have lighter set due to early winter pruning. If two varieties could be singled out for light fruit set they would be Jerseyqueen and Sentry. A significant number of blocks have quite a few fruit with doubles caused by the drought of 1995 when flower buds were being differentiated from leaf buds. More information on individual varieties will be presented in future issues.

If our fruit crop is reduced in 1996 it will be because we have pushed out old unproductive varieties and replaced them with new trees that aren't into production this year. We are also observing quite a few trees dying. ***If you have trees dying please contact me at (609) 863-0110 so we can survey the cause and offer a remedy if possible.*** □

Wholesale Buyers' Guide Available for NJ Peaches

Jerome L. Frecon, Gloucester County Agricultural Agent

A new revised guide for grower/shippers of New Jersey peaches is available from the New Jersey Peach Promotion Council. Published by the Council and Rutgers Cooperative Extension, the new guide contains three lists of grower/shippers - those selling yellow fleshed peaches, nectarines, and white fleshed peaches. The 65-page guide contains information on: The New Jersey Peach Industry; Why buyers should buy NJ Peaches; Promotional opportunities; varieties of peaches grown; information on peach organizations; and structure of the New Jersey Peach Promotion Council.

A comprehensive section of the book also contains information on growers, buyers, and providers of supplies for peach growers, as well as organizations affiliated with the peach industry.

Over 1,000 copies of the guide will be distributed to potential large buyers of New Jersey peaches.

Anyone interested in copies of the guide can call the New Jersey Peach Promotion Council at (609) 784-1001, FAX: (609) 782-0192, or write New Jersey Peach Promotion Council, 152 Ohio Avenue, Clementon, NJ 08021. □

Calendar of Events

June 14 - 18

American Society for Plasticulture Boardwalk Holiday Inn, Atlantic City, NJ. Contact Gene Gacomelli, RCE Bioresource Engineering (908) 932-9753.

June 19, Wednesday, 5:30 pm until dark Plasticulture Demonstration Meeting Rutgers Research & Development Center, Upper Deerfield. Contact Steve Garrison (609) 455-3100 for information.

July 2, Tuesday

Weed Science Field Day at the Rutgers Research & Development Center, Brad Majek, Weed Scientist, Host. Contact Brad Majek (609) 455-3100.

July 25, 26, 27

N.J. Peach Festival at the Gloucester County 4-H Fair. Contact Jerry Frecon (609) 863-0110.

Commission Merchants, Dealers, and Brokers List

Jerome L. Frecon, Gloucester County Agricultural Agent

The New Jersey Department of Agriculture publishes two annual lists of Commission Merchants, Dealers, and Brokers licensed and bonded to purchase New Jersey perishable agricultural commodities. The list was published with those licensed through April 30, 1996 and will be updated in mid June.

This is a very important list because it tells who is bonded and licensed so that if you have any problems with collections on payment you have recourse with the NJDA bond. Of course, before any trans-action is conducted, you should make sure the merchant, dealer, or broker is on the list.

The list is available from the New Jersey Department of Agriculture, Division of Dairy & Commodity Inspection, Bureau of Licensing and Bonding, CN330, Trenton, NJ 08625-0330 or telephone (609) 292-5577. □

Which Box to Use for Peaches in '96

Jerome L. Frecon, Gloucester County Agricultural Agent

In recent years most grower/packers in southern New Jersey have used a 3/4 box holding 38-40 pounds of peaches. Specialty varieties of white fleshed or fuzzless peaches have been packed in 1/2 bushel boxes with approximately 25 pounds of peaches. Some have also used these boxes for large sized yellow-fleshed peaches. Boxes have different dimensions, lids and interior trays or liners, and are corrugated or wood structures.

More growers are talking about and ordering 1/2 bushel or 25 pound boxes for most of their peaches in 1996. This has been precipitated by requests from retailers, wholesale buyers, sales agencies and marketing organizations of peaches. While these requests may necessitate a change to this box, all of the consequences of making this switch should be considered. The change is hopefully driven by an effort to get better wholesale prices for peaches.

Consider the following. A trailer or carload of peaches is approximately 1000 boxes or 38,000 pounds of peaches. One thousand empty 38 lb. boxes are worth approximately \$1250.00.

If that same carload of peaches, or 38,000 pounds is packed in 25 pound boxes then 1,520 boxes will be needed. If the price of a comparable 25 pound box is priced at \$1.10, then the cost of boxes will be about \$1,672 in that trailer if they all fit. In order to justify the cost of these additional boxes for the same volume of peaches, the price should be higher. Last year the wholesale price of peaches averaged about 42 cents per pound for yellow fleshed varieties. If the boxes are going to cost 25% more, then any peaches sold in a 25 pound box should be worth at least 25% more. For example, if peaches in a 38 pound box averaged 42 cents per pound or \$15.96, then peaches in a 25 pound box should average approximately 53 cents per pound or \$13.25 per box to cover the increased cost for boxes. However don't stop there.

Consider these factors:

- 1) Will I be able to pack 1,520 - 25 lb boxes for the same cost as 1,000 - 38 pound boxes?
- 2) Will the glue, staples and time to make 1,520 - 25 pound boxes be the same as the glue, staples, and time to assemble 1,000 - 38 pound boxes?
- 3) Will I be able to sticker, stamp and palletize 1,520 - 25 lb. boxes as fast as 1,000 - 38 lb. boxes?
- 4) Will I be able to store and ship 1,520 - 25 lb. boxes as cost effectively as 1,000 - 38 lb. boxes?

I believe the answer to all of these questions is no, so these additional costs should be calculated into the formula to determine what you need to additionally receive for peaches in 25 lb. boxes. Lastly, will the quality of your peaches be better when the consumer receives them in a 25 pound box? Will they be stacked and handled more carefully?

Consider all of these factors when determining which box to use. □

Weather Summary For The Week Ending 6/10/96

Keith Arnesen, Agricultural Meteorologist

The following table contains meteorological information since the start of the growing season on March 1st. 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 temperatures 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 Day units since March 1st

DEP = Departure from normal of Growing Degree units

%FC = Percent of Field Capacity (soil moisture)

Temperatures averaged above normal. Extremes were 95 degrees at Freehold on the 9th and 46 degrees at Flemington on the 4th. Weekly rainfall averaged 1.62 inches north, 1.45 inches central, and 1.06 inches south.

The heaviest 24 hour total was 1.92 inches at Canoe Brook on the 3rd to 4th. Estimated soil moisture, in percent of field capacity, this past week averaged 85 percent north, 83 percent central and 78 percent south. Four inch soil temperatures averaged 65 degrees north, 66 degrees central and 65 degrees south.

Weather summary for the week ending 8 am Monday, 6/10/96										
WEATHER STATIONS	RAINFALL			TEMPERATURE				GDD BASE 50		MON
	WEEK	TOTAL	DEP	MX	MN	AVG	DEP	TOT	DEP	%FC
BELVIDERE BRIDGE	.94	12.69	.02	86	51	67.	0	446	-51	73
CANOE BROOK	2.44	14.33	.49	91	52	70.	3	617	157	84
CHARLOTTEBURG	2.97	17.06	3.27	87	49	68.	4	489	152	83
FLEMINGTON	.69	14.96	1.81	91	46	70.	3	562	81	71
LONG VALLEY	1.21	14.43	.30	86	49	68.	3	488	105	79
NEWTON	1.48	15.72	3.39	87	48	67.	2	480	90	81
FREEHOLD	1.92	13.59	.55	95	54	72.	4	708	152	80
LONG BRANCH	1.64	11.13	-2.17	80	55	67.	0	542	42	66
NEW BRUNSWICK	1.49	14.72	1.92	90	53	70.	1	586	-10	87
PEMBERTON	1.53	12.73	.25	91	53	72.	4	749	164	60
TOMS RIVER	1.23	15.23	2.25	89	52	70.	4	616	112	60
TRENTON	.88	13.29	1.47	90	51	71.	1	618	-16	70
CAPE MAY CRT HOUSE	.74	13.50	2.04	81	54	67.	-1	577	12	57
DOWNSTOWN .	.93	11.32	-.40	88	49	69.	-1	657	-1	60
GLASSBORO	.78	14.83	2.26	90	58	72.	3	715	78	61
HAMMONTON	1.74	12.85	.61	88	48	69.	0	671	43	62
POMONA	.93	12.87	1.64	83	50	68.	0	596	45	64
SEABROOK	.87	14.98	4.01	88	55	70.	0	673	10	65
ATLANTIC CTY MRINA	1.44	10.60	-.10	76	50	65.	-2	552	31	70
WOODSTOWN	.29	13.39	.94	93	49	72	NA	704	NA	NA

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PLANT & PEST ADVISORY

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