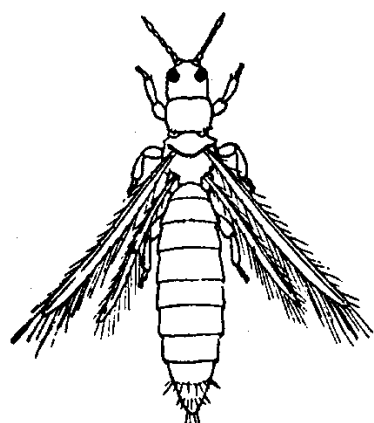


PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

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Apples and Peaches in Virginia

Jerome L. Frecon, Gloucester County Agricultural Agent

The recent summer tour of the International Dwarf Fruit Tree Association was held in Virginia, in and near the counties of Nelson (central) and Frederick (north) - the two largest apple growing areas. Apple acreage continues to decline in Virginia with about 12,000 to 13,000 acres while production has stabilized because of increased yields. Approximately 70% of the production goes to processors, while the balance is sold fresh. Plantings in Virginia, like most fresh market apple production areas, continue to be closer and more intensively managed with high density training systems on wire, stakes or both. Nice plantings, exclusively for processing, were visited that consisted of varieties trained as a slender spindle on posts. The predominate rootstocks were Bud-9 and M-9 with Yorks, Gibson Goldens, Romes and Fujis. This particular grower felt with good processing prices of \$4.50 to \$5.00 per bushel he could cover his costs of production and recoup orchard establishment costs. Other growers producing for the processing market felt they needed to grow bigger trees and had settled on M-26, M-7A, or MM-111. One grower was pleased with his trees on M-26 because of their good anchorage and intermediate tree size. Most of the major varieties for processing were Red Yorks, Gibson Goldens, 262 and Taylor Romes, Standard Granny Smith, and BC#2 Red Fujis. There were also still a few Northwest Greenings and Stayman planted for the processor. Law Rome is not planted anymore because it bleeds in the flesh and lacks good consistent size.

Fresh market apple varieties planted were Red Galas (various strains) Red Fujis (various strains), Spur Red Delicious (various strains mostly Ace and SuperChief), Granny Smith, Ginger Gold (originated near Nelson County) and Pink Lady. Honeycrisp (a Minnesota variety) was discussed at the Virginia Tech Research Station because of its high quality and tolerance to apple scab. There was a lot of discussion of this variety on the tour but none were seen in plantings in Virginia orchards.

Management at Bowman Fruit Products and National Fruit Companies discussed the future of apple processing in the Mid Atlantic States and the importance of the processing industry to the infrastructure of the apple industry. The problems of heavy importation of apple juice concentrate from European countries, South American countries, and China was acknowledged as necessary because of competitive pressure in the juice market, and the need to sweeten and improve quality in

SEE VIRGINIA ON PAGE 2

Postharvest Handling for Aiding in Disease Control

Robert Belding, Ph.D., Pomology

The first step in avoiding storage problems is starting with good fruit. Maturity is very important in the ability of fruit to resist disease problems. As fruit ripen, their resistance to disease becomes less. As fruit approach maturity, they are increasingly susceptible to *Monilinia fructicola* (brown rot) and *Botrytis cinerea* (grey mold). Other diseases such as blue mold caused by *Rhizopus spp.* and *Penicillium expansum* are more likely to attack fully ripened fruit.

Starting with fruit which is free of injury to the cuticle or skin is important to assist in preventing pathogen entry. Maintaining cuticle integrity is very important not only for preventing disease, but for marketing as well.

Although fruit need high humidity in storage, liquid water is necessary for *Monilinia fructicola* (brown rot) to germinate and penetrate into fruit. Sources of liquid water on the fruit come from dump tanks, hydrocoolers and condensation. Dump tanks and hydrocoolers can aid in disease control if adequate chlorine is maintained. Chlorine prevents the spread of spores and assists in sanitizing the fruit surface as it comes from the field. Condensation occurs when the temperature of the fruit is below the dew point of the air. In New Jersey summers, hot days with high humidity are common. Air entering a cold room carries moisture, which condenses on the fruit. Vapor shields at the cold room doors are helpful, as well as limiting trips into the storages. Some growers have been concerned about the condensation that occurs when it is removed from a cold room. This warm up period has been found to be too short to cause a serious disease concern.

Temperature is very important in managing diseases. Fungi have two classes of temperature sensitivity, those which do not grow below 32°F, and those that do grow below 32°F. Two that grow below 32°F are *Botrytis cinerea* (grey mold), and *Penicillium expansum*. This is not to say that because they grow below 32°F that temperature management is not important! Growth of all fungi is greatly reduced at proper fruit storage temperatures of -1 - 0°F. Start with healthy, mature fruit that is free of injury. Get the fruit to the proper temperature as soon as possible, and avoid excess moisture on the fruit in storage. □

VIRGINIA FROM PAGE 1

very early and late season apple juice made from Mid Atlantic apples. It was also acknowledged that the continued importation, particularly from China, would have a negative effect on 1998 prices for processed apples since juice prices are generally the foundation of all wholesale apple prices. This would be discouraging to the growers visited who appeared to have a light to non-existent crop on many York and Golden Delicious trees.

Virginia growers discussed the historical problem of biennial bearing of processing apples, and the difficulties of marketing profitably. They also covered other problems of heavy deer pressure, woodchucks, frosts and lesser color and quality on poorly drained orchard sites and orchards of less than 800 feet on both the East and West Side of the Blue Ridge Mountain Range. The general availability of harvest labor was an expressed concern.

The Virginia Tech Agricultural Research and Extension Center outside of Winchester was toured. Heavy emphasis at this station is placed on research in apple and peach thinning, growth regulation, vole control, disease management, viticulture and the evaluation of apple varieties for disease resistance and tolerance. Dr. Ross Byers, Director of the Center, discussed some of his work. This included some of the effects of shading to simulate natural conditions in eastern orchards, and its effect on reducing fruit set and enhancing the chemical effectiveness of thinning agents. The addition of spray oil to the chemical thinner carbaryl in combination with shade enhances its effectiveness. He continues to show promising results with blossom peach thinners like endothall, Thinex, Wilthin, Thinset, and armorthin. He also discussed results with a wide range of chemical thinning agents for apples and growth regulators for stop drop and growth inhibition. Of particular interest is some of the work he has done with multiple applications of ethephon from bloom to six weeks after bloom to reduce biennial bearing in Red Delicious and York. One grower in Nelson county reported on his success with using one application of 2 pints of ethephon 45 days after bloom to get return bloom on Red Fuji. (More on this in future articles.)

Peach acreage is approximately 2200 acres. The orchards visited had a good selection of nectarines, white and yellow fleshed peaches to develop and maintain their market niche. Peach season did not appear to be as far advanced in central Virginia and the ripening schedule was equal to southern New Jersey. One grower demonstrated the merits of his perpendicular V plantings spaced 6 feet in the row and 16 feet between rows. Most rows were centered on a 6 to 9 inch berm which the grower felt increased tree size and reduced losses to root and crown rot.

A natural horticultural landmark at Monticello in Charlottesville was visited as well as a large "state of the art" apple packing and storage facility at Turkey Knob. □

It's a Thrips Year

Peter W. Shearer, Ph.D., Tree Fruit Entomology

Thrips are starting to be a problem in some peach and nectarine orchards. Currently, several factors contribute to the build-up of thrips including: 1) warm weather, 2) fruit that touch each other creates areas for thrips to feed while protected from sprays, and 3) flowering ground covers, especially clover, provide necessary food and shelter for reproducing populations of thrips. The end result is that many thrips are present in some orchards and pose a risk if not monitored and managed.

Management practices can be started now to reduce risk of thrips damage at harvest. Keep the orchard floor clean of flowering weeds. Mow frequently to prevent the ground cover from flowering or clean cultivate as needed. Be careful, though, don't mow right before harvest because this will drive adult thrips into the tree. White clover is a notorious plant for facilitating increases in thrips levels. Try to keep it from flowering now, then plan to get rid of it this fall. Also, thin fruit so they do not contact other fruit. This reduces the amount of protected areas for feeding thrips.

Monitor for thrips in the tree by examining ripening fruit collected from lower outside branches. Collect samples from at least 5 areas by picking 10 fruit per area (minimum of 50 fruit). Look for the presence of thrips and the characteristic "silvering" feeding damage. If feeding damage (silvering) and 5 adult thrips are found per 50 fruit, an insecticide may be warranted.

Chemical control options for thrips control on nectarines and peaches are limited, so it's important to minimize thrips levels using the above management practices. If thrips are present at harvest and control is warranted, NJ growers can use Lannate 90SP (0.5-1 lb/acre) under a Special Local Need 24(C) label. Lannate 90SP has a 1-day pre-harvest interval (PHI) for nectarine and a 4-day PHI for peach. A copy of this special label must be in the possession of the user at the time of application.

Carzol 92SP (1-2 lbs/acre) is also an effective thrips material and is the choice material when spraying thrips near bloom. It is registered for thrips control on nectarine but not for peaches. However, growers that spray Carzol on peaches for mites or cat-facing insects will also control thrips. It has a 14-day PHI on nectarines and a 21-day PHI for peaches so it cannot be applied as close to harvest as Lannate. Remember, always read and follow the label. □

ProVide® for Crack Suppression in Stayman Apples

Win Cowgill, Hunterdon County Agricultural Agent

ProVide is a plant growth regulator manufactured by Abbott Labs for use on apples. It has been used for a number of years on Stayman Cultivars to reduce preharvest fruit cracking. Cracking is thought to be caused by a number of factors including precipitation, humidity, soil moisture, crop load, strain of Stayman and plant genetics. With the loss of Alar a number of years ago ProVide is the only material that can reduce preharvest fruit cracking when used as directed.

Abbott Labs makes the following suggestions and comments for use:

- ProVide applications must begin prior to cracking. With the season running two weeks early it may be important to begin applications on Stayman sooner than normal.
- Fruit are generally more susceptible to cracking after they have attained two inches in diameter. If ProVide is applied after cracking has started, effectiveness will be reduced.
- Cracking can occur over an extended period of time, thus multiple applications of ProVide are required.
- Apply 3- 6 consecutive applications 2- 3 weeks before fruit cracking is likely to be observed. Intervals between sprays should be 12-16 days.
- Use 16-32 ounces of ProVide per acre per application.
- Greatest cracking suppression may be obtained by using four consecutive sprays at 14 day intervals. The higher rate may also be more effective when environmental conditions are favorable for cracking.
- Apply ProVide using conventional spray equipment. Use sufficient water volume to obtain good coverage of the fruit surface.
- Use of a non-ionic wetting agent may improve coverage and enhance absorption.
- Good absorption is essential, apply in conditions of high humidity and slow drying conditions (evening).
- Approximately 85% of the spray volume should be directed into the upper 2/3 of the trees.
- Rainfall within six hours may reduce the activity of ProVide.

If you have any questions refer to the ProVide label or for more information see <http://orchard.uvm.edu/rce/98tfrecs/9APPLET/Printingb04.html>. □

Manganese Management

Joseph Heckman, Ph.D., Soil Fertility

Manganese (Mn) is a micronutrient that is often deficient in many coarse-textured soils of South Jersey but is seldom found deficient in fine-textured soils of North Jersey. Sandy soils typically have a low Mn content and are very susceptible to Mn deficiency if too much limestone is applied. As soil pH increases, plant availability of soil Mn decreases. Liming practice is therefore an important part of Mn management.

The objective of the liming program, to be consistent with the objective of maintaining soil Mn availability, is to raise the soil pH to the preferred pH level of the crop to be grown but no higher. Because sandy soils require less lime to change soil pH than soils higher in clay content, it is important to carefully apply only the amount of lime that is needed.

In recent years, increasing amounts of limed-sludge (biosolids) products are being marketed. Heavy applications of limed-sludge have in some instances resulted in excessive soil pH elevation and Mn deficient crops. Beneficial use of limed-sludge products requires the same attention to application rate as other traditional liming materials. The application rate of any liming material should be based on the calcium carbonate equivalent as listed on the product label and the soil test recommendation. Refer to Rutgers Cooperative Extension Fact sheets 635, 767, 902, 903, 904, and 905 for further information about liming and soil pH management.

Another aspect of Mn management is an awareness that different crops vary in sensitivity to Mn deficiency. Many legume crops, such as soybean, snap bean, lima bean, and alfalfa, easily become Mn deficient when grown on soils low in Mn. Small grain crops are also susceptible to Mn deficiency. Wheat is especially sensitive to the deficiency and low Mn availability from soil also favors the development of take-all disease. Bentgrass grown on golf course fairways is also more susceptible to take-all disease when Mn availability is low. Corn is generally less susceptible to Mn deficiency than most other field crops but deficiencies will occur on soils more conducive to Mn deficiency. Manganese deficiencies are occasionally observed on fruit crops, such as strawberry and peach, and some ornamentals.

Manganese deficiency symptoms often appear in random patterns across fields (symptoms may range from mild to severe). In most crops the diagnostic symptoms of Mn deficiency are exhibited as interveinal chlorosis: the area between the veins of the leaves turn yellow while veins remain green. The oat plant is an exception – gray oval-shaped specks appear on the edges of leaves.

Cultural Practices to Protect Against Manganese Deficiency

- Avoid excessive application of lime.
- Maintain an optimum pH for the crop.
- Ammonium sulfate is a fertilizer that causes soils to become acid. If soil pH is too high and Nitrogen fertilizer is needed, consider using ammonium sulfate fertilizer.
- Use an acid forming starter fertilizer containing ammonium sulfate or monoammonium phosphate.
- Soil test to identify fields low in Mn availability.
- Grow crops that are less susceptible to Mn deficiency in fields with a history of Mn deficiency.

Treatment of Manganese Deficiency

- Manganese sulfate is an excellent fertilizer source for correction of Mn deficiency.
- Begin foliar treatment of Mn deficient crops as soon as symptoms appear. Plants deficient in Mn will noticeably green up within a few days after treatment.
- For foliar treatment, apply 0.5 to 2.0 lbs. of elemental Mn per acre at each spraying.
- Foliar Mn application on soybean may be applied as a tank mix with postemergence herbicides (Blazer, Classic, Pursuit or Basagran).
- Applications of Mn to soil are generally less effective than foliar treatment. When broadcasting Mn, apply 15 to 20 lbs. Mn per acre. When banding Mn at planting, apply 6 lbs. Mn per acre with the starter fertilizer.

Soil Testing for Manganese

The Mehlich-3 soil test along with a soil pH measurement provides an index of soil Mn availability.

Manganese availability index is calculated as follows:

$$\text{Mehlich-3 Mn Availability Index} = 101.7 - 15.2 (\text{soil pH}) + (\text{Mehlich-3 Mn in ppm})$$

Interpretation of index values:

Below 25: Mn deficient soil

Above 25: Mn adequate

Refer to Rutgers Cooperative Extension Fact Sheets: FS568 and 632 for further information on Mn.

Manganese plant-analysis interpretations for various crops

Crop	Sampling Procedure	Manganese Normal Range, ppm
Alfalfa	Top 6 inches at bud	21-150
Corn	Earleaf at silking	20-200
Soybean	Recent mature trifoliates	21-100
Oat, Wheat, Top leaves		25-100
Barley		
Irish Potato	Recent mature leaves	30-250
Onion	Top-no white portions	50-250
Spinach	Recent mature leaves	30-250
Snap bean	Recent mature leaves	50-300
Strawberry	Recent mature leaves	50-200
Peach	Midshoot leaves	40-160

ReTain: Harvest Management Tool for Apples and Pears

Win Cowgill, Hunterdon County Agricultural Agent

With the season still running two weeks ahead, it is time to consider the use of ReTain as a harvest management tool. ReTain is labeled for both apples and/or pears. It must be applied 28 days prior to anticipated harvest, therefore it is essential you carefully project your ripening dates considering the early season this year. For summer apples and Gala the 28 day window is rapidly approaching. Research has shown ReTain to be effective in reducing stem cracking in Gala and Fuji. This may be an added benefit.

ReTain should be considered for use on blocks of apples with high value, blocks prone to drop, and blocks where spreading out the harvest period manages labor more efficiently. With the cost of treatment around \$250 per acre it is important to use it on blocks where you will receive the most benefit. Gala is one cultivar that benefits by reducing stem cracking and delaying maturity allowing the fruit to size more. Larger fruit bring a premium.

ReTain works by retarding the development of ethylene, the chemical that causes ripening. The active ingredient is a naturally occurring product aminoethoxyvinylglycine (AVG) which is produced by fermentation.

ReTain is a true harvest management tool with multiple benefits. It works as a stop drop material, as good or better than NAA, holding drop-prone varieties on the tree. It does delay maturity on average from 7-10 days. Fruit treated with ReTain can be picked during the normal harvest period for enhanced retention of firmness in CA or regular cold storage, or harvest may be delayed, allowing the fruit to continue to grow and develop red color for an extended time. Our experience in New Jersey is that ReTain reduces preharvest drop on McIntosh from 10-20%.

ReTain allows growers to delay harvest up to two weeks and pick larger, more highly colored fruit that is firmer than untreated fruit. Research in 1996 showed ReTain was also effective in reducing stem cracking in Gala. This may be an added benefit.

In Washington State growers are excited about ReTain because of its ability to enhance the storage quality of Red Delicious. In a 4000 bin pooled experiment, 2000 treated with ReTain and 2000 untreated, ReTain-treated fruit was 2 lbs. firmer allowing it to make export grade. New Jersey grown apples in regular cold storage will see the same firmness enhancement with ReTain-treated fruit.

ReTain is a natural product which is very expensive to manufacture. Because of this, ReTain should only be

Fruit Meeting Calendar

July 23 through July 26, 1998 - New Jersey Peach Festival at the Gloucester County 4-H Fair, 4-H Fairgrounds, Mullica Hill, NJ. Contact Chris Smith at 609-881-1411 or Marsha Gaventa at 609-467-8028.

August 4, 1998 - Deer Fencing Installation Seminar, Rutgers Snyder Research Farm, Pittstown, NJ. Call Snyder Farm at (908) 730-9419, ext. 11 to register.

August 5, 1998 - Deer Fencing Installation Seminar, Rutgers Agricultural Research & Development Center, Bridgeton, NJ. To register, call Rutgers Snyder Research Farm at (908) 730-9419, ext. 11.

August 18, 1998, 6:30 p.m. - Direct Marketing Twilight Meeting, Monmouth County, Atlantic Farms, 1506 Atlantic Avenue, Wall Township (Rt. 524), NJ 08736

Located in suburbia, John Tobia and family have carved out a wonderful market, serving consumers with Jersey produce, plants, farm entertainment and agriculture education tours. A steadily growing wholesale produce business serving restaurants and other marketers has been established, further diversifying the operation. For further information, please contact Ramu Govindasamy at (732) 932-9171 ext. 25.

used in blocks with large crops of unblemished fruit.

There are some important considerations to follow with ReTain applications in New Jersey this year:

- Use the full rate of ReTain, 1 pouch or 333 grams/Acre of formulated product with an organosilicone surfactant at 0.10 % (v/v)
- ONLY use one of the following organosilicone surfactants as surfactants: Silwet L77 at 13 fluid ounces per 100 gallons Sylgard 309 at 13 fluid ounces per 100 gallons
- Apply 4 weeks before anticipated harvest (28 day PHI); it is better to apply slightly earlier rather than later
- Water Volume- ReTain should be applied with a sufficient amount of water to ensure thorough wetting of the fruit while avoiding spray run-off. Adjust water volume based on tree size and spacing
- For optimum results apply during periods of slow drying weather conditions. No rainfall or irrigation should occur within six hours of ReTain application
- Do not tank mix ReTain with other agricultural products
- Do not apply NAA or ethephon products to ReTain-treated blocks

ReTain is an exciting new harvest management tool for New Jersey growers. If you have specific questions regarding the use of ReTain please feel free to contact me.

For additional information consult the label and the Virtual Orchard at <http://orchard.uvm.edu/rce/researchreports.html>. □

Fruit IPM

Dean Polk, Agricultural Agent

Peach

Tarnished Plant Bug (TPB), Other Catfacing Insects:

A few adult stink bugs have been found in the trees. Both adults and nymphs of TPB and stink bugs are present in the ground cover. Where unmowed weeds make up the majority of the ground cover, catfacing insects are present at levels 4 to 5 times higher than in mowed sod.

Oriental Fruit Moth: Several sites have been found where larvae are present in flagged terminals and in isolated fruit. Larvae are from half to mostly grown at this time.

Thrips: Thrips, most likely western flower thrips, are common in several locations. Thrips injure the fruit just after petal fall and again prior to harvest. The following is from the Mid-Atlantic Orchard Monitoring Guide:

“...Several generations occur per year as populations build up in clover and other weeds in and around orchards, as well as in field crops such as alfalfa. Development time from egg to adult is only 10 days at 81°F(27.2°C). Flight activity of WFT peaks in July though September in stone fruit orchards in southcentral Pennsylvania. Mowing or other disturbance of adjacent hosts can increase WFT movement into stone fruits. Driving rainfall is thought to be a significant mortality factor of the thrips.” “...At final fruit swell stone fruit again become vulnerable to adult and larval feeding on the fruit surface. Thrips feed in protected sites, such as in the stem end, the suture, under leaves and branches that contact the fruit, and between the fruit. Feeding at this time results in silvering, a benign surface blemish, that can be quite extensive if thrips populations are unchecked...”

While several blocks of nectarines have been found to be heavily infested with thrips, we are increasingly seeing peach blocks that are also infested. On Monday a block of Sentry was seen with up to 2 doz. active thrips present on one fruit. Late season silvering injury is

common, and is especially visible on highly colored varieties. Injury is just starting to become visible on Redhaven and Bellaire. The most critical time to control late season thrips in peaches is during the last 7 to 10 days before harvest. Control on nectarines should be initiated during the last 2 to 3 weeks prior to harvest. Lannate 90SP is suggested for control (The LV formulation may be used on peach, but is not labeled on nectarines). While the suggested rate is between .5 and 1 lb. per acre, we have seen unsatisfactory control with the 1/2 lb. rate, therefore the 1 lb. rate is preferred.

Bacterial Spot: Fruit infections are present in both southern and northern counties, although at levels significantly lower than last year. Since bacterial spot takes 3 weeks to become visible on the fruit, copper or Mycoshield sprays are suggested up to 3 weeks prior to harvest.

Rhizopus Rot: Low levels of Rhizopus rot have been seen on preharvest fruit. Fruit which was picked and remained at room temperature for several days was seen to have a very high infection rate.

Apple

Spotted Tentiform Leafminer (STLM): Additional sapfeeding miners have been noted in many orchard blocks. Several blocks were scouted that had trees with interior leaves more heavily infested than exterior leaves. Some leaves on the inside portion of the trees had no more room for additional mines. While sprays should be timed for sapfeeding larvae, thorough coverage is also important.

European Red Mite (ERM): Red mites have increased during the last couple of weeks, with numbers over 28 to 30 mites per leaf. Significant populations of predatory mites are also present and should help to keep ERM populations in check.

Tufted Apple Budmoth (TABM): The first spray for the second generation should be due in about 600 more degree days₄₅ in Gloucester County. With the current temperatures, this is estimated in about 2.5 weeks. Most first brood larvae are late instar and almost fully grown.

Degree Day Accumulations Since Biofix and Spray Targets

Insect	July 6							
	Hammonton	Bridgeton	Hardingville	CreamRidge	Princeton	Oldwick	Pittstown	Hackettstown
OFM	Done	Done	Done	Done	Done	Done	Done	Done
TABM	1593	1578	1612	1482	1469	1446	1249	1150
CM	1200	1231	1250	1163	1139	1114	—	941
Spray Targets:								
OFM	200 & 400 DD ₄₅ after biofix (1 st generation).							
TABM	490, 625, 763, 898 DD ₄₅ after biofix (1 st generation). 2228, 2415, 2605, 2795 DD ₄₅ after biofix (2 nd generation).							
CM	250 DD ₅₀ after biofix plus 14 days later (1 st generation). 1250-1300 DD ₅₀ after biofix plus 14 days later (2 nd generation).							

Codling Moth (CM): Sprays for the second generation are due in southern counties now. Timing for northern counties should follow by the end of the week (Hunterdon Co.) to early the following week (Warren Co.).

Summer Disease Control (Sooty Blotch and Fly Speck): Current theory suggests that protective materials be applied starting after 270 hours of accumulated seasonal wetting. As of this date we have had 226.6 hours of accumulated wetting since 10 days after petal fall on red delicious in Gloucester County. Therefore, we may only require one or two more prolonged wetting periods before control needs to be initiated. According to Skybit disease forecasts, we may accumulate sufficient wetting by the end of the week. Fungicide combinations that include Benlate are the most effective.

Blueberry

Leafrollers: Larvae are present at low levels in 3% of our samples. Only .1 larva per 20 fruit clusters was the highest level reported.

Aphids: Aphid levels have decreased since last week

Trap Captures

Tree Fruit – South Jersey

WEEK END:	RBLR	STLM	TABM-A		CM	AM	OFM	TABM-PLPTB	PTB
5-Jun	0.20	875	58.49	5.51	0.25	8.75	84.20	55.87	2.62
12-Jun	6.80	850	59.83	2.83	0.08	5.31	67.72	62.29	1.13
19-Jun	12.20	931	27.52	1.77	0.24	7.64	36.90	44.50	1.68
26-Jun	27.80	1054	38.62	1.96	0.28	11.81	52.12	54.37	7.70
3-Jul	19.60	943	25.26	1.52	0.05	8.55	30.91	40.69	8.57

Tree Fruit – North Jersey

WEEK END:	RBLR	STLM	TABM-A		CM	AM	OFM	TABM-PLPTB	PTB
5-Jun	0.30	658	42.30	10.09		8.49	33.14	53.26	0.00
12-Jun	0.61	429	23.05	2.65		1.87	21.15	2.53	0.00
19-Jun	5.71	1210	27.15	4.75		4.65	22.48	25.88	0.27
26-Jun	21.54	1162	20.07	7.38		8.59	17.41	38.72	2.04
3-Jul	36.41	844	15.20	4.98	0.10	8.05	13.81	25.11	3.77

Blueberry - Atlantic Co.

WEEK END:	RBLR	OBLR	CBFW	SNLH	BBM/HIGH	BBM/LOW
6/5	12.4	7.5	0.53	0	0	0.04
6/12	26.25	2.025	0.41	0	0.06	0.01
6/19	44.98	1.47	0.30	0.25	0.02	0.01
6/26	36.04	1.34	0.04	0.004	0.67	0.30
7/3	20.79	1.0	0.03	0.02	0.34	0.22

Blueberry - Burlington Co.

WEEK END:	RBLR	OBLR	CBFW	SNLH	BBM/HIGH	BBM/LOW
6/5	0.89	12.17	1.61	0.47	0	0
6/12	5.44	11.38	2.17	0.67	0	0.03
6/19	21.67	10.31	3.83	0.61	0.07	0.11
6/26	40.78	4.19	0.56	0.5	0.2	0.17
7/3	23.61	1.31	0.44	0.06	0.35	0.06

from 90 to 95% of samples with aphids down to 72% of samples found with aphids. Average shoot infestation levels average about 10% of shoots infested.

Cranberry Fruitworm (CBFW): Larvae are present in 15% of our samples, with just over 1% infested berries the highest level seen.

Blueberry Maggot (BBM): Captures of adult flies on commercial farms continue at similar levels as were found during the previous week. High counts continue to be found in abandoned sites, and even increased since the previous reading. Some traps in abandoned sites captured over 400 adult flies per trap. Boiling samples have not shown any positive results as of this date.

Disease: Mummy berry has been found in 28% of field samples. Anthracnose and alternaria infected fruit continue to be found in field samples. Anthracnose is present in 7% of samples while alternaria is being found in 5% of samples. Field rates are light, although fruit set aside at room temperature often shows significantly higher levels.

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PLANT & PEST ADVISORY

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