

PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

MAY 20, 1997



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Reporting Crop Damage

Submitted by Jerome L. Frecon, Gloucester County Agricultural Agent

The following information was recently sent to all agriculture leaders by Secretary Art Brown.

In an effort to reduce crop damage caused by deer and other wildlife populations, I'm writing you and members of your organization at the request of the State Board of Agriculture, to urge you to report crop damage caused by wildlife to the Division of Fish, Game and Wildlife (F,G&W). Here's Why!

In April, members of the Sate Board of Agriculture met with representatives of F,G&W to discuss their management plan for deer. According to F,G&W statistics, regulated hunting continues to be the most efficient, economical and humane means to control deer and other wildlife populations, and prevent the damage they cause. Yet the most *serious problems inhibiting the adequate control of deer and other wildlife are the lack of hunter access to such wildlife and not reporting damage caused by wildlife.*

Deer management zones are the key element of New Jersey's deer management program. And one of the major components to setting annual harvest goals is deer damage incurred and reported by farmers, as well as other landowners, homeowners, and the motoring public. Thus *it is absolutely essential for farmers to annually report any deer damage* so that it is included in the formula used to set annual deer harvest goals by zone. Unfortunately, in 1996 only 387 farmers in the state reported any crop damage to F,G&W.

To report deer and other wildlife damage or lack of hunter access to such wildlife, call the F,G&W's Deer and Wildlife Damage Hotline (908-735-6938 or 908-735-8793) 24 hours a day to leave a recorded message. To report damage to a wildlife management specialist, call 908-735-8793, weekdays from 8:30 AM to 4:30 PM or call the regional wildlife management office in your area. □

Pyramite Labeled for Apples and Pears

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

On May 7, 1997, EPA issued full tolerance Section 3 registrations for use of Pyramite 60WP miticide/insecticide on apples, pears, and almonds. The state registration is still pending but is being expedited.

Pyramite 60WP is very effective against **European red mite**, **twospotted spider mite**, and **pear psylla**. In tests conducted by Rutgers and others around the country, Pyramite gave long lasting control against **European red mite** at 4.4 oz/acre. **Twospotted spider mites** and **pear psylla** require at least 6.6 oz/acre for control.

This miticide/insecticide contains a new active ingredient, pyridaben, and should help miticide resistance management programs if rotated with other miticide options. It can be used during the summer months; it has a 25-day preharvest interval (PHI) on apple, 7-day PHI on pear.

Pyramite, manufactured by BASF, was registered earlier than expected because EPA recognized that tree fruit growers were lacking viable options for summer **mite** control following the loss of Omite. Because University researchers have limited experience with this product, they are still debating whether Pyramite is a good IPM miticide (doesn't harm mite predators) or "just" an effective new miticide. More information should come this year as researchers study the effects on **mite** predators following treatment of large acreage.

Good coverage is necessary for control. Both the apple and pear Pyramite labels specify that a minimum of 100 gallons of water per acre is required to assure thorough coverage. □

Fruit IPM

Dean Polk, IPM Agent, Fruit

Peach

Oriental fruit moth (OFM): The second sprays for the first generation are being or have just been applied in southern counties (Bridgeton due 5/20, Hardingville on 5/16). Growers in the central part of the state should plan on applications by the weekend. The second application will be due in Hunterdon County by 5/26-27, and slightly later in Warren County.

Green peach aphids: Aphid colonies are still present. Almost half the sampled blocks in the Camden/Atlantic/Burlington County area showed signs of aphid activity. Generally, we are seeing aphids in more plantings this year than in most previous years. Some blocks in southern counties, particularly several Encore plantings, showed a significant increase since last week. Several plantings in northern counties were seen Monday where colonies averaged 3 or more per tree. Control has been satisfactory where applications of Lannate have been made. Ultimately, up to 5 or 6 colonies per tree (peach) may be tolerated. However, reproduction is occurring and populations are increasing. If treatments are initiated, then Lannate is the preferred product (1.5-2 pt/A of LV, or .5-.75 lb/A of 90SP) - see last newsletter for details. If using an O.P. for OFM, then reduce the rate when using with Lannate.

Catfacing Insects: Activity has increased in most counties, especially around wooded areas and in blocks with weedy ground covers. Some stink bugs were seen in the trees in southern counties. Treatments that are being or will be applied for OFM will also control catfacing insects.

European red mite (ERM): ERM motile forms are present in a number of peach plantings. In most cases the mites are immature and are at low levels. However, one area was seen in Hammonton with over 30 mites per leaf. The mite predator *Stethorus punctum* was also present at this site. This illustrates the importance of not using pyrethroids at this time, since these chemicals will kill the predator populations that are trying to build up where mites are present. If predators do not develop and growers wish to treat mite populations on peaches, there are three options: Apollo @3-4 oz/A, Vendex @1-2 lb/A, and Carzol @1 lb/A. Comparative prices are: \$36-\$48/A, \$22-\$44/A, and \$35/A respectively. Carzol does not work well in hot weather, while some growers have had spotty results with Vendex.

Bacterial spot: Bacterial spot infections are present in a number of susceptible varieties in southern counties. New foliar lesions continue to develop. These appear as small angular water soaked spots on the upper leaf surface, bordered by leaf veins. Eventually the spots redden on the edges, turn dark and shot hole. Leaf yellowing and drop occurs shortly thereafter. In most cases the spotting can be found on the ends of the leaves where water collects and drying is slow. The spots are different from those caused by copper injury, in that copper injury makes small, round, pin-prick like holes. There is no water soaked appearance and no angular border. Some copper injury is common and should be expected. If too many leaves drop from copper injury, then back off the Tenncop rate and/or use a more dilute spray volume.

Leaf Curl: Leaf curl is easy to find, especially in several locations in northern counties. Although the infected leaves should drop, there should be no more foliar infections taking place this season. Growers

SEE IPM ON PAGE 4

Weed Control in Tree Fruit

Bradley A. Majek, Ph.D., Weed Science

Postemergence (knockdown) herbicide options include 2,4-D, Gramoxone Extra, Roundup, and Rely. The characteristics of each herbicide is different, and should be used in different situations.

Weedar 64 and other labeled formulations of 2,4-D effectively control **annual** and certain **perennial broadleaf weeds** such as dandelion. Applications should be sprayed before the target weeds begin to bloom. Effectiveness decreases after flowering has begun. No control of **annual** or **perennial grasses** can be expected; therefore, the use of 2,4-D as a knockdown herbicide should be limited to fall and early spring before **summer annual grasses** emerge. Peach and apple shoots sprayed with 2,4-D will be killed, but the rest of the tree will not be affected. Do *not* use 2,4-D on newly planted trees.

Gramoxone effectively controls **seedling annual broadleaf** and **grass weeds**, but may only provide temporary control of established **annual** and **perennial weeds** by "burning off" the foliage. Applications should be sprayed before the target annual weeds become established. Effectiveness decreases after flowering has begun. No long term control of **perennial broadleaf weeds** or **grasses** can be expected. Peach and apple shoots sprayed with Gramoxone Extra will be killed, but the rest of the tree will not be affected. Do *not* use Gramoxone Extra on newly planted trees.

Roundup Ultra (and other labeled glyphosate formulations) effectively control many **annual** and **perennial broadleaf weeds**. The reason is that after absorption through the leaves, Roundup is moved (translocated) throughout the plant, including down into the roots. Applications should be sprayed when the target weeds are actively growing and have a large healthy canopy of foliage to absorb the herbicide. Effectiveness decreases when treatment is made during periods of stress for the target weed. Control of **perennial broadleaf weeds** and **grasses** is more difficult, requires a higher rate, and must be applied at the right time of year. Applications at the wrong time of the year will result in control of the shoots, but poor translocation into the roots and re-growth. The correct time of year for Roundup application depends on the target species. Generally, **perennial grasses** must be tillered and have at least six or more leaves before treatment. **Perennial broadleaf weeds** are most susceptible when they are in full bloom to the green fruit stage of growth. This occurs at different times of the year for different weeds. Peach and apple limbs sprayed with Roundup will be killed. The rest of the tree may be affected the same year by Roundup translocated out of the sprayed limb into the tree, or the next year by Roundup translocated from the sprayed limb into the roots where it is stored until the following spring. Do *not* use Roundup on newly planted orchards until they are four - five years old and all the bark hit by spray is old, mature, and brown. Heavily shaded apple suckers sprayed in the spring do not affect the rest of the tree, but suckers that receive several hours of direct sun treated in the late summer may translocate Roundup to the roots.

Rely is labeled for use in apples, effectively controls **annual broadleaf** and **grass weeds**, and may provide temporary control of perennials, and regrowth may be suppressed, but *Rely is not recommended for use in New Jersey*. Research conducted at Rutgers with experimental formulations that contained glufosinate, the active ingredient in Rely,

New Labor and Other Publications

Jerome L. Frecon, Gloucester County Agricultural Agent

The following publications on labor have been recently updated by Dr. Edmund Tavernier, Specialist in Agricultural & Environmental Policy and Dr. Robin G. Brumfeld, Specialist in Farm Management. They are available free of charge to any grower by contacting the Publications Distribution Center, Dudley Rd. Cook Campus, New Brunswick, NJ or calling 908-932-9762.

Southern New Jersey Tree Fruit growers may call 609-863-0110 or write a note to me at 1200 N. Delsea Drive, Clayton, NJ 08312.

Available publications are:

- FS 723 Farm Labor Camps
- FS 724 Farm Worker Field Sanitation
- FS 727 Crew Leaders and Agricultural Workers
- FS 728 Child Labor
- FS 732 Transport of Farm Workers

The following new publications are also available:

- FS 795 Treating Drip Irrigation systems with Chlorine, by Dr. Craig A. Storlie
- FS 871 Understanding Fertilizer Labels: Grades and Ratios of Nitrogen, Phosphorous, and Potassium by Dr. Joseph R. Heckman

caused significant trunk injury to apples and peaches. Other herbicides that are currently recommended did not cause injury in the same experiments. Additional research is currently in progress using the formulation of glufosinate marketed under the trade name "Rely". □

Fruit Meeting Calendar

May 21, 1997 - Twilight Fruit Meeting
(6:15 p.m.) Mt. Pleasant Orchards,
Elmer-Richwood Road, Richwood, NJ
Contact: Jerry Frecon (609) 863-0110.

June 5, 1997 - Cream Ridge Straw-
berry Plasticulture and Breeding Field
Day (1:00 p.m.) Rutgers Fruit Research
and Extension Center, Cream Ridge,
NJ
Contact: Dr. Joseph Fiola (609) 758-
7311.

IPM FROM PAGE 2

should note which blocks are infected, since those will likely have higher levels of overwintering inoculum which may be problematic during the following season.

Apple

European red mite (ERM): European red mite motile forms have increased in some plantings. Few areas are being seen where sprays are needed.

Codling moth: Spray dates for the first application will fall close to 5/27-28 in Cumberland/Gloucester/Salem Counties, and slightly later in Atlantic and Burlington Counties. Timing will be during the first week of June in central and northern counties.

White apple leafhopper (WALH): First and second stage nymphs are present in southern counties at low levels. Leafhopper hatch is underway in northern counties with most nymphs in the first instar stage. If isolated areas have over 3 nymphs per leaf then control is justified. See last newsletter for details.

Rosy apple aphids (RAA): RAA colonies are present but at low levels. In most cases one can first see RAA colonies on the inside portion of the tree. Look for tightly curled leaves. In most cases growers will have already applied a

SEE RAA ON PAGE 5

South Jersey Twilight Fruit Meeting and Orchard Tour

Wednesday, May 21, 1997 - 6:30 p.m.
Mount Pleasant Orchards
Elmer-Richwood Road, Rt. 609
Richwood, NJ

AGENDA

- 6:15 p.m.** Assemble and park in front of Mt. Pleasant Orchards Packing House
Welcome by - Bud Reuter, Sr., Bud Reuter, Jr., Lou Reuter and Jake Reuter-owners
- 6:30 p.m.** Leave on orchard tour on trucks and wagons
- 6:40 p.m.** Stop One:
IPM Update and Weather Monitoring - Dave Schmitt,
Program Associate - Fruit, Rutgers Cooperative Extension
IPM Recommendations and Mating Disruption Research by -
Dean Polk, IPM Agent - Fruit, Rutgers Cooperative Extension
Timely Tips on Fruit Production by - Dr. Robert Belding,
Extension Specialist in Pomology, Rutgers Cooperative
Extension
- 7:10 p.m.** Stop Two:
Phytophthora Rot and Corn Rot Research and Disease Control
Recommendations by - Dr. Norman Lalancette, Specialist in
Tree Fruit Pathology, Rutgers Cooperative Extension
Deer and Bud Control of Fruit Crops by - Mr. Jim Burton,
Weitech/JWB Marketing and Dr. B.A. Clark, Chestnut Run
Orchards, Woodstown, N.J.
- 7:45 p.m.** Peach Variety Evaluations and Turf Ground Cover Management
Demonstration by - Jerome L. Frecon, Agricultural
Agent, Rutgers Cooperative Extension
Weed Control in Orchard Ground Covers by - Dr. Bradley
Majek, Specialist in Weed Science, Rutgers Cooperative
Extension
Apple Insect Control and Ground Cover Management
Considerations for Bees and Other Insects by - Dr. Peter
Shearer, Specialist in Fruit Entomology, Rutgers Cooperative
Extension
Return to Packing House for refreshments and demonstration
of Price Look Up (PLU) equipment for small packing houses.
- 8:30 p.m.** Adjourn - Refreshments
This farm is not totally accessible to the physically impaired. Call
609-863-0110 for assistance and details.
Meeting will be held rain or shine.
New Jersey Pesticide Application Units will be given.

preventative treatment. Populations that average in excess of 1 colony per tree merit an additional treatment. Cygon @ 3 pt/A has given satisfactory control. Provado @6-8 oz/A may also work, but ideally should be used as a preventative.

Apple scab: The last wetting events have not registered as scab infection periods. Where growers have had visible infections, the use of Syllit has worked as a "burn out" material. When used as a burn out material, Syllit should be used at 1-1.25 lb/A, preferably in combination with Captan @ 2.5 to 3 lb/A.

Powdery mildew: New infections are easy to find, especially in Rome blocks. SI materials in combination with another fungicide are all effective for powdery mildew control. Benlate is also effective, but is not suggested in an IPM program early in the season, since it kills predatory mites. Sulfur @ 10-12 lb/A has suppressed powdery mildew in processing blocks in the past and is the most economical to use.

Tree Fruit Pest Degree Day Accumulations Since 1st Catch - 5/20/96

Site	Biofix/1 st Catch Date & DD - OFM		Biofix/1 st Catch Date & DD - TABM		Biofix/1 st Catch Date & DD - CM	
	Hammonton - At. Co.	3/25	521	5/2	239	5/9
Hardingville - Glou. Co.	3/30	474	4/30	268	4/30	177
Bridgeton - Cumb. Co.	4/7	420	5/1	262	5/2	161
Princeton - Mercer Co.	4/17	331	5/12	128		
Oldwick - Hunt. Co.	4/21	303	5/17		5/19	
Hackettstown - War. Co.	4/28	248			5/9	90
Spray target after biofix/1st catch	200, 400 DD after biofix (1 st generation)		Alt Mid Appl. at 490, 625, 763, 898 (1 st brood), and 2228, 2415, 2605, 2795 (2 nd brood)		250 DD plus 2 weeks later (1 st generation), 1250-1300 DD plus 2-3 weeks later (2 nd generation)	

Trap Averages

South Jersey Tree Fruit

Week Ending	RBLR	STLM	TBM-A	CM	AM	OFM	TBM-P	LPTBPTB
5/2	30.8	885	0.06	0.04	—	56.9	0.08	— —
5/9	25.3	1177	4.5	1.0	—	39.5	3.0	— —
5/16	7.0	822	30.2	2.6	—	12.9	50.6	0.7 —

North Jersey Tree Fruit

Week Ending	RBLR	STLM	TBM-A	CM	AM	OFM	TBM-P	LPTBPTB
5/2	40.2	1080	0.0	0.01	—	3.3	0.0	— —
5/9	22.2	980	0.0	0.3	—	26.2	0.0	— —
5/16	10.7	902	1.0	1.3	—	6.0	0.1	0.1 —

Blueberry

Atlantic Co.

Week Ending	RBLR	OBLR	CBFW	SNLH	BBM	5/2	107
5/9	27.5	0	0	—	—		
5/16	7.4	0	0.5	—	—		

Burlington Co.

Week Ending	RBLR	OBLR	CBFW	SNLH	BBM
5/2	33.4				
5/9	14.0	0.2	0	—	—
5/16	5.6	0	0.3	—	—

Abandoned

Week Ending	RBLR	OBLR	CBFW	SNLH	BBM
Atlantic					
5/2	38				
5/9					
5/16	8	0	0	—	—

Blueberry

Leafrollers and other Leps: This week's IPM sampling showed slightly less than one third of our samples with any levels of leafroller larvae. The highest levels found were .1 larvae per 20 clusters, or .5 larvae per 100 clusters. This maximum level was still half the number needed (1 larva/100 clusters) to justify a spray specifically for leafrollers and other similar larvae. Similar larvae include spanworms, green fruitworms, and gypsy moths. The counts taken during the past week and into this week represent the highest levels likely this spring.

Cranberry fruitworm (CBFW): The first adult CBFW were caught in pheromone traps this past week. The adult flight will increase over the next several weeks as they emerge from pupal cases within the soil. Egg laying will start shortly. If the biology of this insect proceeds as it has in past years, treatment should be timed for about one week after peak adult catch. This has usually coincided with June 3-5 in Atlantic County, and about June 7-10 in Burlington County.

Aphids: Aphids continue to be present in a few sites. About 10% of our samples showed aphid activity. Most aphids are present as one or two insects. Little reproduction has been noted.

Blueberry scorch virus: This is present in just over 10 % of our samples. One field had almost 100% of the bushes infected.

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❖ **Document of Interest** ❖

3017 - PennCap-M Section 24C Special Label - stone and pome fruit in NJ

New Brunswick, N.J. 08903-0231
Cook College
P.O. Box 231

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Use of Trade Names: Trade names are used in this publication with the understanding that no discrimination is intended and no endorsement is implied. In some instances the compound may be sold under different trade names, which may vary as to label clearances.