

PLANT & PEST ADVISORY

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Orchard Weed Control in the Fall

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



The optimum time for herbicide application depends on the target weed. Late fall is the best time to control **winter annual weeds**, including **horseweed, camphorweed, common chickweed, mustard species, cheatgrass, annual bluegrass** and others. The two orchard floor vegetation management sites, the sod between the tree rows and the weed free strips in the tree rows, may require fall weed control efforts.

Initiating an orchard weed control program in the fall has advantages. The crop and neighboring desirable vegetation are dormant which reduces the risk of injury from spray drift. Residual herbicides applied in late fall will work the following spring, eliminating the risk of escapes due to dry weather after spring applications. Labor distribution on the farm can be improved by applying herbicides in the fall rather than in the spring, when pruning and early insect and disease control sprays may be a higher priority. Slightly higher rates may be needed to maintain full season **summer annual weed** control.

Delaying the initiation of a weed control program until spring requires well-timed catch-up efforts at a time of year when most growers are busy. Spring applications control weeds during the cropping season with the minimum residual herbicide rate for the soil, but cost savings on residual herbicides may be spent controlling established winter annual weeds.

Split the herbicide applications to the weed free strip in the tree row. Applications in the fall and spring require two trips over the field, but offer advantages over either single spray program. Lower herbicide rates can be used, reducing the risk of crop injury and reducing the impact on the environment. Herbicides can be rotated to minimize the possibility of the development of resistance. Split applications improve weed control by treating the field when winter and when summer annuals germinate. The weed control program is buffered against adverse weather or late application in the spring by the fall treatment that provides weed control into the summer.

Orchard Sod Between Tree Rows

Broadleaf weeds are undesirable in an orchard sod. Competition with the crop and mowing requirements may be increased. Many weeds are alternate hosts for diseases, insects, and nematode pests. The flowers of **dandelion, clover, mustard species** and other

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weeds coincide with apple bloom and are preferred by pollinating insects. The same weeds and others may also bloom before or after the trees bloom and attract bees into the orchard when insecticides must be sprayed. The seedheads of dandelion clog tractor radiators and delay other orchard maintenance operations.

Many broadleaf weeds can be controlled or suppressed in the fall with 2,4-D applied before the weeds become dormant for the winter. Use 1 quart of Weedar 64 per acre or other labeled formulations (1.0 lb ae/acre 2,4-D amine). Spray to uniformly wet the foliage of the target weeds. Flat fan nozzles provide more uniform coverage than flood tips and should be used to apply postemergence herbicides. Choose a day to spray when no rain will occur for a minimum of eight hours after application.

Clover is difficult to control, but can be suppressed or controlled in an orchard sod with good management practices and herbicides. Manage fertilizer applications to favor grass rather than the clover. Nitrogen fertilizer stimulates grass growth, and phosphorus and potassium stimulate clover growth in a mixed grass and legume sod. Do not apply fertilizer containing phosphorous or potassium to sod if clover control is a problem. Rather apply fertilizer for tree growth in the vegetation free strip. Mowing height also influences the composition of a mixed grass and clover sod. Close mowing favors the clover. Taller sod will favor the grass. Mow no closer than four inches if clover control is a problem in the sod.

Clover and certain other weeds, including **wild onion** and **garlic**, can be suppressed with 2,4-D, but good results require additional effort. The leaves of clover are densely covered by fine hairs and wild onion leaves are waxy and vertical. Both weeds retain spray poorly. Add nonionic surfactant to increase wetting and spray retention to improve control. Add the surfactant in units of 1 quart per 100 gallons of spray solution. Check for improved wetting after adding each quart of surfactant. The amount of surfactant needed will depend on the characteristics of the water used. Use the amount needed to improve wetting. Too much or too little will reduce control. Splitting the application by applying half the 2,4-D rate twice, about seven to fourteen days apart, will further improve the suppression or control of clover and wild onion. Use 2,4-D in conjunction with good fertilization and mowing practices to suppress clover on sites where the weed is well adapted.

Note: A Section 18 Emergency Exemption for the use of Stinger 3A has been granted in New Jersey and Delaware to control clover and other weeds in the legume and composite plant families in peach and nectarine orchards. This label was granted to control these weeds to eliminate alternate host plants for

aphids, which spread the **plum pox virus**. Consult the previous newsletter and/or your local county cooperative extension agent for additional information.

Weed Free Strips in the Tree Row

Winter annual weeds germinate in the fall, overwinter, and flower the following spring or summer. Common examples in New Jersey orchards include **camphorweed**, **horseweed (marestail)**, **common chickweed**, a variety of **mustard species**, **cheatgrass**, **annual bluegrass**, and others. At least a few of these weeds can be found in every orchard in the state. Winter annual weeds compete vigorously for water and fertilizer in the spring when tree growth is essential. Many weeds "luxury consume" nutrients when they begin to develop flower buds in the spring. Luxury consumption means the weed absorbs many times the amount of nutrients needed for maximum growth, which denies the tree access to the fertilizer.

Control winter annual weeds in orchards with a late fall (November) application of Weedar 64 (2,4-D) and Princep (simazine). Weedar 64 (2,4-D) is a postemergence broadleaf weed herbicide, which will control emerged winter annual broadleaf weed seedlings. Princep (simazine) is a residual herbicide, which will prevent the establishment of winter annual broadleaf weeds, and suppress winter annual grasses. Early germinating summer annual broadleaf weeds will also be controlled next spring.

Apply 1 quart of Weedar 64 plus 1.0 to 2.0 pounds of Princep per acre. Other labeled formulations of both 2,4-D and simazine may be available. Use the most cost effective product that is labeled. The rate of Princep used depends on soil texture and organic matter. *Consult your Commercial Tree Fruit Production Recommendations for additional rate information.*

Certain annual grass herbicides can also be applied in late fall, tank-mixed with Weedar 64 (2,4-D) and Princep (simazine). The three way tank-mix will provide wide spectrum summer annual grass and weed control in the spring. The urgency of spring residual herbicide application is reduced by applying residual grass and broadleaf herbicides in the fall.

Residual annual grass herbicides suited to fall application must not leach readily. Herbicides recommended for application in the fall include Solicam 80DF (norflurazon), Surflan 4AS (oryzalin), Devrinol 50DF (napropamide), and on nonbearing trees, Prowl 3.3EC (pendimethalin). All four of the above products are recommended for use at 2.0 to 4.0 lb ai/a. Apply 3.0 to 4.0 lb ai/a in late fall tank-mixed with the Weedar 64 (2,4-D) and Princep (simazine) or split the application with a spring treatment. Split the application by applying 2.0 to 2.5 lb ai/a in the fall. An additional 1.0 to 2.0 lb ai/a, depending on soil texture and weed pressure, should be applied in the spring.

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Another Year of Adversity for NJ Peach Growers

*Jerome L. Frecon, Agricultural Agent and Charles Walker,
Marketing Consultant, New Jersey Peach Promotion
Council*

The new century has not yet brought improved financial conditions or new prosperity to New Jersey peach growers and shippers. We had a relatively mild winter in 1999/2000 with no temperatures low enough to cause injury to peach buds. Trees started blooming from April 3rd through April 23, depending on variety location and management practices to delay bloom. A significant number of growers were courageous enough to either buy rope thinners, or try Wilthin and fertilizers to reduce flower load. Bloom counts in many variety blocks verified the heavy flower density in most southern New Jersey orchards. Growers were optimistic on the success of these chemical thinning treatments based on the research of Dr. Bob Belding of Rutgers Cooperative Extension, and the pressure of ending up with small fruit (less than 1/2 inches in diameter). The drought of 1999, coupled with the increasing difficulty of marketing fruit, made it a necessity to strive for big fruit.

Temperatures during the bloom period were below normal and a few nights hovered near 30 degrees Fahrenheit. Easter morning on April 23 was a day to remember as high winds and snow kept air and flower temperatures during the early morning near 30 degrees. Absolute temperatures varied a great deal from site to site but it was obvious some flowers had been lost due to low temperatures. Higher and better exposed sites seemed to have less flowers than lower sites. Some peach orchards that bloomed later probably had more injury than those that bloomed early and were in various stages of shuck split and fruit enlargement. After extensive evaluations most growers were optimistic of a having a full crop with reduced costs of hand thinning.

Fruit development during the early season was about 10 days ahead of normal. As some fruit was beginning to mature, most growers were finishing thinning operations ahead of schedule. While it appeared that blossom thinning and low temperatures had reduced the crop on some sites, other growers used mechanical tree shakers to reduce crop load. Flaming Fury PF#1 was the first peach to be harvested in any quantity during the week of June 26th followed closely by Flaming Fury PF#5. The later variety was clearly the superior fruit in terms of size, split pits and color. While older blocks of Candor and Derby still were producing, wholesale buyers have told us to stick the bulldozers to those other than enough to handle retail trade. Better very early varieties are on the horizon.

Hail reared its ugly head on some farms in late June and July and further reduced the crop. After some consolation to the affected growers, they did their best to thin -out or harvest what they could and face the daunting task of trying to market hail-hit fruit.

As we moved into Sentry season and then on to Redhaven type varieties, the rains came. From July 15 through the second week of August, frequent rains and excessive cloudy and overcast weather

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Do not exceed 4.0 lb ai/a per year. Tank-mix the spring application with Karmex 80DF (diuron). Include a postemergence herbicide in the spring only if needed. The spring application can be delayed until May or June, since residual herbicides from the fall application will control early season summer annuals.

Growers that prefer to use Sinbar 80DF (terbacil) for residual annual grass control should *not* include a residual grass herbicide with the Weedar 64 (2,4-D) and Princep (simazine) applied in the fall. Sinbar 80DF is too soluble and likely to leach to be suited for fall application.

This program will not control **perennial weeds**, including **Canada thistle, goldenrod, certain wild asters, Virginia creeper, and others**. These weeds are deeply rooted and established. Separate special control measures are necessary to control established perennials. Small isolated pockets can be spot treated. Orchards with widespread populations of perennial weeds should be sprayed with an effective postemergence herbicide. The timing of the application of postemergence herbicides is critical for the successful control of perennial weeds. Modify the residual weed control program if necessary to accommodate the control of perennial weeds. □

Calendar of Events

January 16, 17 & 18, 2001 - NJ Vegetable Meeting and Trade Show at the Trump Taj Mahal Casino/Hotel Resort, Atlantic City, NJ. Contact your county agricultural agent for a complete program and registration information.

March 10, 2001 - A Viticultural and Enological Symposium. Forsgate Country Club, Jamesburg, NJ. Contact Dr. Joseph A. Fiola, Cream Ridge Research Center at 609-758-7311, X10, fax 609-758-7085 or e-mail: creamridge@aesop.rutgers.edu.

New USDA Apple Insurance Pilot Covers Quality, Premium Losses

The US Department of Agriculture (USDA) has approved a new apple crop insurance pilot program designed to significantly expand coverage for losses of fruit quality, and to reimburse growers at rates more reflective of market prices. The pilot expanded insurance available for the 2001 crop to growers in the country's major apple-producing areas who purchase coverage by November 20. The new insurance program will cover losses of fruit quality due to damage from a variety of natural causes beyond the current coverage for only hail, wind or freeze damage. It also will compensate growers for losses of higher-value premium fruit, a distinction the current program does not make. "This program significantly expands coverage and provides reimbursement that is more reflective of market prices, and at more affordable rates to growers," said U.S. Apple Association (USApple) President Kraig Naasz. "We commend USDA for its work to respond to the industry's needs so thoroughly and quickly." USDA's Federal Crop Insurance Corporation approved the new pilot program October 19. The pilot program was the result of a collaborative effort between USApple and USDA's Risk Management Agency over the past year.

USApple encourages interested growers to contact their crop insurance agent immediately to learn more about the requirements for eligibility. A list of crop insurance agents is available on USDA's website, at:

<http://www.rma.usda.gov/tools/agents>. The pilot program will be evaluated by USDA after the first year and revised as deemed necessary. USApple expressed hope that the program will be expanded to all growers in time for the 2002 crop. For more information, contact USApple at (800) 781-4443.

NOTE: Expanded coverage for the 2001 crop must be purchased Nov. 20, 2000.

Submitted by Win Cowgill, Agricultural Agent. □

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was common. The Hammonton area did not get as heavy rainfall as other areas where growing season levels rose from 2.5 to 7 inches above normal. This created a number of problems. For those growers not using good fungicides during bloom, brown rot was a problem. Most growers worried about brown rot although surprisingly fruit rot was not a major problem. Cost of application and fungicides were high but most growers did a great job of controlling fruit rot. Soft fruit full of water was a more significant problem at times during the shipping when movement historically slows down.

The pressure was intense from July 15 to August 15. New Jersey peaches were ripening about 10 days early. Sentry was heavy during early to mid July when California began its heavy volume. California has five varieties that make up 1/3 of their shipments. Elegant Lady peaked during the week of July 15, Summer Lady peaked during August 5th and O'Henry peaked during the week of August 12. New Jersey and South Carolina were shipping more nice varieties during this period. Georgia was in O'Henry season from July 24 to August 11. O'Henry was also coming a few days later from South Carolina. While these varieties did not look as nice as California fruit, they rolled in unconsigned, clogging up the few specialty markets we had to maintain price.

New Jersey started out with some decent prices but as we got further into John Boy and similar varieties, fruit softened. Warm temperatures hastened this price drop and Loring was on us with less than desirable color and large soft fruit. Some fruit was never picked and a lot was harvested but never sold. It seems that even in a good market, buyers do not want to buy Loring peaches.

Carlot shipments during the seven major weeks of the season were as follows: July 15 – 5,178 carlots; July 22 – 4,987 carlots; July 29, 4,617 carlots; August 5 – 4,585 carlots; August 12 – 5,277 carlots; August 19 – 4,840. Carlots shipments dropped off dramatically after August 19. New Jersey FOB prices were hard to track but 2 ½ up peaches generally ranged from \$10 to \$12 for ½ bushel cartons until the week of July 29 when prices dropped from \$8 to \$10 per box. By August 2 prices were \$7 to \$8 per box and then as low as \$6 to \$7 until August 28 when prices started to rise to \$10 to \$12. Most of our fruit was shipped by September 15. We did fare a little better on yellow fleshed nectarines and white fleshed peaches.

Prices finished up stronger but still not high enough to make up for below cost of production prices and fruit that was lost or not sold. While fruit size was good, losses from weather and hail probably resulted in at least a loss of 20 % of earlier crop estimates. We learned that we have really good fungicides but the cost of using them may be prohibitive.

Nectarine prices were decent but the Eastern Nectarine crop was down. White peaches sold well but the crop was not as large as earlier estimates. It remains to be seen how many white low acid peaches we can market. □

Dwarf Apple Rootstocks and the NC-140 Trials

Jeremy Compton, North Jersey Tree Fruit
Technician and Win Cowgill, Agricultural Agent

Ever since their introduction into the industry in the 1960's the Malling series apple rootstocks (M27, M9, M26, M7a, MM106, MM 111) have been the standard for which all other stocks are compared to. Although this series of stocks has revolutionized the apple industry, allowing for higher yields, better fruit quality and earlier bearing; we still do not have an ideal apple rootstock. Apple growers need rootstocks resistant to the major apple insect and diseases; **fireblight, phytophthora, tomato ringspot and wooly apple aphids.**

While breeding programs and nurseries throughout the world are committed to identifying new and better stocks, the NC-140 Regional Rootstock Project is the only multistate research based team that scientifically evaluates new rootstocks across 28 states and Canadian provinces.

We just returned from Ohio State University where this year's NC-140 technical committee met to review our progress. Each year the cooperators meet to compare research findings and plan future work. The NC-140 project hosts a web site with more detailed information about specific research plantings and lists detailed information on where to find rootstock information <http://www.NC140.org>.

Several new stocks have been released over the past couple of years and are available at commercial nurseries. However, many of these have not been through the NC-140 trials and have not been tested adequately in the US. We caution you to go easy on unproven stocks. Mark rootstock is an example of a stock that was not tested adequately and was released prematurely. Many growers are still having problems with Mark.

Table 9.1 of the *2000 New Jersey Commercial Tree Fruit Production Guide* is also a quick and useful guide on the performance of many commercially available stocks. This document can be found online at the NC140 web site in the document section.

Below are several dwarfing stocks from the 1994 NC140 apple trial in New Jersey planted at the Rutgers Snyder Farm.

Cornell-Geneva-16- A new rootstock that is of M9 in size, but resistant to fireblight. Testing of this stock is limited throughout the US; limited trials have shown excellent results. A small trial at the Snyder Farm shows this stock produces a slightly smaller tree than M9. Cornell reports this stock being sensitive to latent viruses, so clean budwood is a must.

M9 Clones:

There have been many clones developed since the introduction of the original strain of M9. M9 is the most successful and widely planted rootstock in the industry today. Nurseries have identified and use numerous proprietary clones of M9; each performs a little differently. Although their tolerance to fireblight may vary slightly, all M9 clones are considered highly sensitive to fireblight.

M9 NAKB 337- This is the most widely propagated clone of M9 today. It is a very good rootstock, but very susceptible to fireblight. In the 1994 NC-140 trial, 337 is proving to be one of the smaller of the M9 clones. It has one of the highest yield efficiency ratings but only average fruit size.

M9 EMLA- A virus free clone of the original M9, M9 EMLA is the oldest and most widely tested of all M9 clones in the US today. This clone is highly tolerant to Phytophthora root rot, but it is very sensitive to fireblight. It is one of the weaker growing strains of M9, with a size comparable to 337.

M9 RN 29- 'Nicolai' 29 is a Belgian clone of M9 that has performed very well in Europe. Although its testing is still limited in North America, it has looked good in many national rootstock trials. In the 1994 NC-140 trial at the Snyder Farm, RN 29 is proving to be the largest of the M9 clones under evaluation. Its size is comparable to that of M26. Its 4-year cumulative yield has also been higher than any of the other clones and fruit size is outstanding.

M9 'Fleuren' 56- F 56 is a virus free Dutch clone, and one of the least vigorous clones of M9 under test in North America. F 56 has very limited testing in the US. It has performed well in the New Jersey NC-140 trial, with the highest cumulative yield efficiency of all the M9 clones. Fruit size has suffered with trees on this stock. Nationally, F 56 has not been a favorite of NC-140 researchers through year 5. Rootstock performance appears to increase as the tree gets older.

M9 Pajam 1 (Lancep)- The authenticity of the Pajam series clones, as to their M9 progeny, is in question. But, as of now, both Pajam series stocks are treated and evaluated as M9 clones. Pajam 1 produces a larger tree than most other M9 clones. Although the tree is larger, it is highly productive and produces large fruit.

M9 Pajam 2 (Cepiland)- Another clone of M9 originating in France. Pajam 2 produces a tree with more vigor than Pajam 1. In our 1994 NC-140 trial, Pajam 2 has the lowest cumulative yields of all the M9 clones, and fruit size has been average. Nationally however, Pajam 2 has proven superior to M9 EMLA and NAKB 337 in nearly 100 test trials.

Other dwarfing clones:

Budagovsky 9 (Bud.9 or B9)- There are two clones of this stock that have been discovered. One is a tissue culture mutation of the original B9 that was imported

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from Europe. B9 produces a tree comparable to that of the smaller M9 clones, but is much more winter hardy and Collar Rot resistant than M9. Although not well documented, reports from across the country this year indicate B9 may provide resistance to fire-blight. It has been untested to this point whether B9 actually does provide fireblight resistance, or if only one of the clones is resistant. Most of the rootstock nurseries are currently propagating is the original European clone that has performed outstanding in the 1994 NC-140 trial.

Ottawa 3- Bred in Canada for cold hardiness, O3 is a rootstock that falls between M9 and M26 in size. Nursery propagation is difficult and the stock is fireblight susceptible. For these reasons this rootstock is hard to find. Ottawa 3 has performed well in national field trials, with high precocity and consistent annual yields being other strong points of this stock.

B9 and Ottawa 3 have been among our favorites in New Jersey for a full dwarfing apple rootstock to date.

If you would like more information on these rootstocks, or the NC140 project, please contact us and visit <http://www.NC-140.org>. □

Apple Taste Testing at the Rutgers Snyder Farm

Win Cowgill, Agricultural Agent and Jeremy Compton, North Jersey Tree Fruit Technician

On September 29, 2000 we conducted a taste test of new apple cultivars under evaluation at the Rutgers Snyder Farm. Fifteen members of the NJ Association of Family and Consumer Scientists served as the evaluators. They rated ten apple cultivars that had matured in our research plots prior to the end of September. A mix of standard cultivars was compared to newly named and numbered cultivars.

All apples in the test were rated for: Appearance, Skin Texture, Flesh Texture, Taste, Sweetness and an Overall Rating.

The cultivars included:

- | | |
|-----------------|--------------------|
| 1 Red Delicious | 6 Liberty |
| 2 NY-75414 | 7 Gala-(Treeco 42) |
| 3 Empire | 8 Jonathan |
| 4 Jonagold | 9 Golden Delicious |
| 5 Honeycrisp | 10 NJ-83 |

The evaluation was conducted as a blind test with the professional educators not learning the identity of the apples until completion of the sampling.

It is interesting to note that consumers as well as professionals have different tastes in apples. Some like sweet and some prefer tart but the majority fall in between, just like the different varieties do. In this test the sweet lovers selected Gala, Red Delicious, and Golden Delicious. The tart lovers selected Liberty, NY-75414, NJ-83, and Jonathan. The in-between selected Honeycrisp, the new apple from Minnesota, followed by Jonagold, the favorite apple in Europe, and Empire, a newer apple from New York State widely available in the chain stores.

The hands on favorite however, was Honeycrisp. A new apple that is being planting widely in New England, New York and Northern New Jersey. Ten of fifteen evaluators selected it as the best overall cultivar, as well as the best tasting and having the best flesh texture.

Another taste test will be conducted in December to compare the new fall ripening cultivars under test at the Snyder Farm with Honeycrisp and other standards. For more information on apple cultivar research visit the New Jersey Fruit Focus Web Site at <http://www.virtualorchard.net/RCE/>.

For more information on Honeycrisp visit <http://www.honeycrisp.com>. □

PPV National Survey Information for October 10, 2000 for NJ

Robert Balaam, Director, Division of Plant Industry, New Jersey Department of Agriculture

Field Sampling conducted by: NJ Department of Agriculture

0 Acres of propagative orchards surveyed.	0 Samples taken
130 Acres of commercial orchards surveyed.	812 Samples taken
0 Mother trees sampled.	0 Samples taken
0 Nursery properties surveyed.	0 Samples taken
0 Other (list): Coop. Ext. Variety Evaluation Blocks	0 Samples taken

Laboratory Analysis conducted by: NJ Department of Agriculture

812 Samples analyzed 812 Negative Samples 0 Positive Samples

This report covers activities from September 15, 2000 through October 10, 2000. Submitted by Jerome L. Frecon, Agricultural Agent □

Update on Plum Pox Virus

PDA Activities for Sept. 11 through Oct. 20, 2000

Nancy S.H. Richwine, State Plant Disease Survey Coordinator, Pennsylvania Department of Agriculture

Sampling of commercial stone fruit trees has been ongoing throughout the 6-week period since the last update of the week ending September 8, 2000. Survey teams of PDA and temporary duty USDA personnel collected leaf tissue at 477 orchard blocks according to the hierarchical method outlined by the Plum Pox Virus National Surveillance Program. Survey teams have continued to expand their leaf collection activity into new counties. In addition, fall re-sampling began during the week of Sept. 11 in stone fruit orchard blocks in and around the quarantine area. Of highest priority for resample has been orchard blocks within a 10-mile area from known PPV infected trees. This brings to 1612 the number of orchard blocks sampled this year in 20 Pennsylvania counties.

Of orchard samples processed by the laboratory at the PA Department of Agriculture during this 6-week period, 0 tested positive for plum pox virus. Of the 56,762 field samples processed by the lab in year 2000, 398 samples have tested positive. No positive samples have been detected since the week of July 4, 2000. The positive samples were detected from 39 blocks belonging to 9 different growers in Adams and Cumberland Counties, PA. Treatment and destruct orders have been issued for approximately 657 acres so far this year. All these blocks have been pushed out and burned. This is in addition to the 218 acres found to be positive in 1999 and destroyed earlier this year. Letters continue to be mailed to growers across Pennsylvania for whom sampling and testing of commercial stone fruit orchards is now complete and whose orchards tested negative for plum pox virus.

During this reporting period the PDA Virology Laboratory in Harrisburg processed 340 homeowner, fruit tree nursery and ornamental nursery samples. All of these samples tested negative. The homeowner survey continued during this reporting period. Scouts visited private properties in Huntington and Latimore Townships, Adams County and South Middleton and Dickinson Townships, Cumberland County. Of the 166 properties visited, 72 had Prunus that was sampled.

Lead senescence is beginning and it is anticipated that October 27 will likely be the end of leaf sampling for the year 2000 survey. Field crew ranks will fall to fewer than 6 people. When sample collection ends, advance teams will resume contacting growers in counties not yet in preparation for mapping in the coming months. We will focus next on Centre, Clinton, Mifflin, Lehigh, Northampton and Monroe Counties. Scouting for Prunus potential hosts plants at homeowner properties in the quarantine area will also continue as long as host recognition is possible.

The PA PPV program regularly re-samples known positive trees that have not yet been removed. Now that all known positive orchards have been removed, our only field positives have been from suckers found in a removed plum block. Positive results have been obtained from these samples every week this summer, giving us reason to continue sampling.

Additional information is available via www.pda.state.pa.us.

Submitted by Jerome L. Frecon, Agricultural Agent. □

Small Fruit Program in New Jersey

Jerome L. Frecon, Agricultural Agent

The following small fruit sessions are part of the annual New Jersey Vegetable Meeting and Trade Show sponsored by Rutgers Cooperative Extension. This year the meeting will be held on January 16, 17, and 18th, 2001 at the Trump Taj Mahal Casino/Hotel Resort, Atlantic City, NJ. Contact your county agricultural agent for a complete program and registration information.

Tues. AM, Jan. 16

Strawberry Plasticulture Session

9:30 Production and Pest Control Basics
10:00 Dormant Plants vs. Tip/Plug Plants
10:20 Strawberry Plasticulture in Pennsylvania
10:50 Varieties, Plant Types, and Planting Dates
11:20 Double-Cropping with Ethnic Vegetables
11:40 What's New From Industry

Tues. PM, Jan. 16, Brambles Session

1:45 Bramble Weed Management
2:10 New Bramble Varieties from the Cooperative MD/NJ/VA/WI Breeding Program
2:40 Primocane Bramble Variety Trials in Pennsylvania

3:10 Season Extension Technology for Primocane Raspberries

3:40 Season Extension for Primocane Raspberries with High Tunnels

4:00 What's New from Industry

Wed. PM, Jan. 17 Blueberry Session

1:30 p.m. Is Post-Harvest Fertilizer Application Cost Effective?

2:00 A Survey of Disease Resistance in Blueberry Cultivars, Old and New

2:20 Insecticide Use Strategies in Blueberries

2:40 Highbush Blueberry Production in the Pacific Northwest

3:00 What's New from Industry

3:10 Can High Density Planting and Trellising Improve Machine Harvesting Efficiency?

3:40 Strategies for Reducing Fungicide Usage in Blueberry Disease Management

4:00 USA Blueberry Council Update

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