

PLANT & PEST ADVISORY

FRUIT EDITION \$1.50

NOVEMBER 10, 1998



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Painting Peach Tree Trunks with White, Water-Based, Latex Paint

by Jerome L. Frecon, Gloucester County Agricultural Agent

Many studies in eastern peach producing areas show that the bark and cambium temperatures on a peach tree are considerably higher than the air temperatures. For example, Dr. Earl Rip Savage of the University of Georgia showed that the temperature on the south side of a peach trunk may reach 96 degrees F., while the air temperature at the same time was only 55 degrees F. Retired Agricultural Agent, Les Miller, and former Rutgers Agricultural Meteorologist, Clarence Sakamoto, reported on this differential in New Jersey Horticultural News in the late 1950's on some orchards in the Hammonton area.

Using thermocouples attached to a recording thermometer, Miller and Sakamoto recorded the wide variation in temperatures from November through February on bare trees and trees treated with a reflective covering, like white paint. On clear days, temperatures varied greatly between treated and untreated trees. For example on February 8, the highest temperature of a trunk was recorded at 84.5 degrees F. for untreated trunks, and 52 degrees F. for trunks treated with white coverings; the surrounding air temperature was 39 degrees F. On that same day, the trunk temperature on untreated trees dropped 70 degrees by 1 a.m to 14.5 degrees. Many days during the winter, temperatures on the southwest side rose above 32 degrees F. It was not uncommon on the clear days during January and February to see a differential of 25 to 40 degrees on trees not treated with a white covering material. Peach trees treated with a white coating were always 10 degrees to 32 degrees cooler and no more than 13 degrees higher than the air temperature. While it was not clear in this experiment when the chilling requirement of these trees was satisfied, it is not uncommon in New Jersey to have the chilling requirement met in mid-January on Redhaven Peach Trees. After this rest period is completed, peach trees are more sensitive to low temperatures after high fluctuations.

An additional factor to consider is that many of our peach trees are grown on loamy sands and sandy loam soils. While the centers of orchard rows are covered with sod, the strip under the trees is bare. Sandy soils heat up more quickly than heavier soils on a bright sunny day and also lose this heat more quickly on a cold clear night. The deep drop in soil temperature of a sandy soil may add to the problem of

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increasing the low temperature sensitivity of the tree during the winter.

Many growers have gotten away from the practice of painting trees with white paint to protect them during the winter months. The practice of painting trees has a far greater impact on protecting the tree from damage by low temperatures than piling soil around the trunks.

Painting trees has a far greater impact on protecting the tree from damage by low temperatures than piling soil around the trunks.

The best coating is an interior, water-based, white latex paint covering the trunk and lower scaffold branches, as experience over the years has shown. Some growers find it beneficial to put repellents and other pest management protectants in the paint. Diluting the paint at least 50% with water is probably cost effective in terms of increasing coverage and still maintaining good residual coverage. If we want to continue to keep our orchards living and increase yields we must protect trees during the winter, particularly some of the newer varieties that may be more sensitive to low winter temperatures. □

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Tri-State Horticulture Meeting Name Changed

by William H. Tietjen, Warren County Agricultural Agent

The annual Tri-State Horticulture Meeting and Trade Show is so successful, it completely fills the Hershey Convention Center. Through this meeting, the state horticultural associations of Pennsylvania, New Jersey, and Maryland have developed excellent working relationships together. And, for over 20 years, the Pennsylvania Vegetable Growers Association also has met at the same time and place. In recognition of the close working relationship of the four state organizations, the convention committee decided to designate a single name for the entire event: the **Mid-Atlantic Fruit and Vegetable Convention**, to be held January 26-28, 1999. Plan now to head to Hershey in January!

This year should be even better than last year, because the \$32 million expansion of the Hershey Lodge and Convention Center is now complete! It includes a new lobby and high rise hotel section, new restaurant facilities, one huge hall for the entire trade show, and expanded space for educational sessions — even computer access for hands on training.

Calendar of Events

January 11-13, 1999 – Fifth Annual Cranberry Meeting and Trade Show of the Virginia and West Virginia Horticultural societies, Hotel Roanoke & Conference Center, Roanoke, VA. Call 804-277-9337 for registration information.

January 19 & 20, 1999 – Strawberry, Blueberry and Small Fruit Sessions, New Jersey Annual Vegetable Meeting, Trump Taj Mahal, Atlantic City, New Jersey. Contact any vegetable or fruit agent with Rutgers Cooperative Extension for information.

January 23 through January 25, 1999 – National/Southeastern Peach Convention, Wyndham Hotel and Resort, Myrtle Beach, SC. Call Bill McCunay at 803-734-2215 for more info.

January 26-28, 1999 – Mid-Atlantic Fruit & Vegetable Trade Show and Convention, Tri-State Horticultural Sessions, Hershey Lodge & Convention Center (newly enlarged & remodeled) Hershey, PA. Contact: Bill Tietjen at 908-475-6505 or Jerry Frecon at 609-863-0110 for meeting and registration info.

February 17, 1999 – South Jersey Fruit Meeting & Trade Show, Masso's Crystal Manor, South Delsea Drive, Glassboro, NJ 08028. Contact: Jerry Frecon at 609-863-0110 for registration information.

Mid-Atlantic Fruit and Vegetable Convention Featured Presentations

Tuesday Morning

- ◆ Highlight: George Goodling Memorial Lecture
- ◆ The Regulation of Vigor in High Density Orchards, Dr. John Barden of Virginia Polytechnic Institute and State University (VPI&SU)
- ◆ Fruit Grower Methods for Wildlife Damage Control, by Grower Panel, including Gary Mount of Terhune Orchards
- ◆ Orchard Rodent Control Update, Dr. Ross Byers, VPI&SU

Tuesday afternoon

- ◆ Use of Pheromone Traps to Predict the Need to Spray, Dr. Greg Krawczyk, Penn State University
- ◆ Pesticide Application: Does Precision Ag Work in Tree Fruit, Dr. Frank Hall, Ohio State University
- ◆ The Effectiveness Of APOGEE For Apple Vegetative Growth Control, Dr. George Green of Penn State
- ◆ Topworking Trees to New Cultivars, Jerry Frecon of Rutgers Cooperative Extension
- ◆ Board of Directors of the New Jersey Horticultural Society Meeting, 4 p.m.

Wednesday Morning

- ◆ Complexities of Federal Immigration and Labor Laws, and I-9 and H2A Revisions
- ◆ On Labor Experience, Grower Panel, including John Rigolizzo, Jr., NJ Grower, and Farm Bureau President.
- ◆ Alternative Apple Scab Control Methods, Dr. Jim Travis, pathologist from Penn State
- ◆ Efficient Use of Pesticides and Drift Mitigation, Dr. Frank Hall, Ohio State
- ◆ Apple Rootstock Selection in the Mid-Atlantic Area, Dr. John Barden, VPI&SU
- ◆ Keys to Using Chemical Thinness, Dr. Ross Byers, VPI & SU
- ◆ Peach Rusty Spot Control, Dr. Norman Lalancette, Rutgers Cooperative Extension
- ◆ Pruning Peach Trees After a Winter Freeze, Dr. Stephen Miller, USDA-ARS Fruit Research Laboratory
- ◆ Mating Disruption for Peach Insects- Will It Work? Dr. Larry Hull, Penn State Entomologist

Lunch and Learn Sessions, from noon to 2

- ◆ Peach Bacterial Spot Control Strategies, Informal Discussion with Dr. Lalancette, Rutgers Cooperative Extension
- ◆ Peach Insect Management, Informal Discussion with Dr. Peter Shearer, Rutgers Cooperative Extension

Wednesday Afternoon

- ◆ Peach Training Systems, Dr. Stephen Miller, USDA-ARS Fruit Research Laboratory
- ◆ Hydrophobic Particle Film on Stone Fruit, Dr. Bob Belding, Rutgers Cooperative Extension
- ◆ NJ State Horticultural Society Business Meeting.

Thursday morning

- ◆ Peach Orchard Ground Cover Management Reduces Insect Damage, Dr. Peter Shearer, Rutgers Cooperative Extension
- ◆ Turf Cultivars To Use In Orchard Floor Ground Covers, Dr. Brad Majek, Rutgers Cooperative Extension
- ◆ The Results Of Peach Rootstock Trials In The Mid-Atlantic Area, Dr. George Greene and Dr. Christopher Walsh, Penn State
- ◆ US Apple Association Approaching the New Millennium, Kraig Naasz, President of the US Apple Association

Thursday afternoon

- ◆ Computerized Sprayer Monitoring Systems
- ◆ The Effect Of Retain On Apple Storage
- ◆ On Orchard Mechanization, Grower Panel moderated by Jerry Frecon, includes:
 - Rope Thinning, Charles Haines, NJ
 - Ground Cover Seeding, Doug Zee, NJ
 - Mechanical Pruning Aids, Rolf DeCou, NJ
 - Bin Haulers, Rich Keim, PA
 - Sprayer/Mower Combination, Lee Spencer, PA

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PLANT & PEST ADVISORY

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