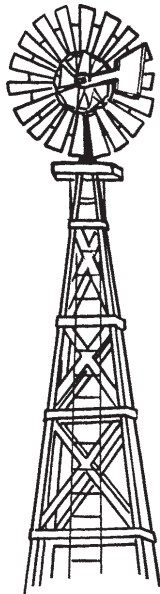


PLANT & PEST ADVISORY

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Two Grant Programs For Northeast Producers

Applications are now available for the Northeast Region Sustainable Agriculture Research and Education (SARE) Program's 1999 farmer grants. Northeast SARE now offers two kinds of grants to producer-initiated and managed projects that will advance knowledge about alternative production and marketing practices.

"These grants provide a wonderful opportunity for farmers interested in evaluating new ideas," says Northeast SARE Program Coordinator Fred Magdoff. "Many farmers and growers have had an idea but didn't have the time or the resources to fully test it. Here's a program which helps farmers to try something new that may end up significantly helping their farms."

Through the seven-year old Farmer/Grower Grant Program, SARE helps producers conduct farm-based experiments to answer their own production and marketing questions. Farmer/Grower Grant proposals may address any food, non-food or forest crop production or marketing issue. Project activities may include small research trials, educational activities and demonstrations.

Through its two-year old SEED (Special Evaluation, Education and Demonstration) initiative, Northeast SARE will provide grants to producers willing to farm-test selected, alternative practices. Previous SARE-supported research has shown that these practices improve farm profitability, reduce pesticide use, protect soil, and/or enhance quality of life.

The goal of both programs is to develop and refine systems and practices that promote stewardship of natural resources, prevent agricultural pollution and improve farm profitability.

Northeast SARE will award up to \$150,000 through its producer grant programs. Grants will be awarded on a competitive basis to farmers in the 12-state region. In the past, grants have ranged from \$300 to about \$8,000.

Reviewers will give preference to proposals that clearly define local sustainable agriculture problems or issues and propose innovative solutions. Projects must be led by one or more producer, include a professional technical advisor (an extension agent, for example) and outline a plan for sharing gained information with others in the community.

Any producer within the Northeast is eligible to apply. The Northeast region includes: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, West Virginia and Washington D.C.

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Pre- and Postharvest Handling of Peaches

This article was written by Dr. Allen Biggs and published in the July 13 issue of the Orchard Monitor Newsletter. The newsletter is available on the West Virginia Web Page at: <http://www.wvu.edu/~agexten/orchardmon/om071398.htm>.

Postharvest fungicide treatments can be effective for controlling **brown rot** and **Rhizopus** on stone fruits. Unfortunately there are no materials registered for postharvest control of **brown rot**, and the material that is registered for **Rhizopus rot** (Allisan) is prohibitively expensive. Until this changes, postharvest problems have to be taken care of during the preharvest season. Postharvest treatments are not a substitute for good orchard sanitation and effective disease control practices during the growing season. If favorable conditions for **brown rot** occur during the preharvest period, consider the use of a highly effective brown rot fungicide (Indar, Orbit, Elite - all with 0-day preharvest intervals), especially in blocks where **brown rot** has been a problem in the past. Rovral has a 7-day preharvest interval. Remember to use a surfactant with Indar.

Chlorine: Chlorine as a postharvest treatment for stone fruits is a good disinfectant when used properly. When using chlorine, carefully monitor the concentration and maintain a "dirt-free" hydrocooler (because chlorine is quickly scavenged by particulate matter). Use only chlorine-generating products that are registered for the desired use and use according to the label. Test kits cost anywhere from \$30 - 50 dollars and are available through Green Chemical Co. or Chemetrics in Calverton, VA.

Some drawbacks to chlorine are: 1) it is corrosive to metal, 2) it is sensitive to pH, (you will need to test the pH of your water in addition to the chlorine concentration), and 3) although it is effective for killing fungal spores in water, it does not protect wounded tissue against subsequent infection from spores lodged in the wound (i.e. it has no residual activity). This is of concern with peaches.

Some general do's and don'ts for postharvest handling of peaches (including suggestions to reduce discoloration (also known as inking, ink spot, black spot, streak, or purple spot):

1) Avoid any operation that causes excessive vibration, rubbing or rolling; reduce operations that cause bouncing from the orchard to the packinghouse;

2) Keep field bins held outside the packinghouse prior to hydrocooling in a shaded area out of direct sunlight;

3) Remove "field heat" as soon as possible. Fruit temperatures in the field can range from 75 to 95°F. Remove field heat with a hydrocooler rather than trying to remove it with a ventilated cold room;

4) Keep hydrocoolers and dumptanks as clean as possible. Excessive iron in treatment water can cause discoloration. Improper cleaning can result in high levels of rust in the water, thus increasing the risk of discoloration. Drain and refill with fresh water on a regular basis.

5) Maintain the pH of water in hydrocoolers and dumptanks between 6.5 and 7.0. Water at pH's of 4.0 and 6.0 has caused problems with discoloration. Proper pH also reduces iron levels.

6) Check any equipment that uses ammonia for refrigeration. Leaks can stimulate inking, and peaches can be affected by ammonia at levels less than 1 part per million — below levels that emit an odor.

North Carolina State University has an excellent on-line reference on chlorination and postharvest disease control. The URL is (all on one line): <http://www2.ncsu.edu/eos/service/bae/www/programs/extension/publicat/postharv/ag-414-6/>

"Chlorine tips" (from the above reference):

1) If water is not necessary in the packing process, do not use it. Wetting the produce greatly increases the likelihood of damage by postharvest diseases. If the produce must be washed to remove soil, there is no alternative to wetting. Hydrocooling also necessitates wetting the produce, although other methods, such as forced-air cooling, may be a viable option in some cases. When water is necessary in packing lines (for example, in dumping tanks, flumes, or a hydrocooler), always treat it to reduce the risk of disease.

2) Check the chlorine concentration and pH frequently using test papers or electronic equipment. Automatic chlorination equipment is available that continually monitors the condition of the solution, add chlorine, and correct the pH. Also, monitor the water condition and temperature.

3) Avoid overexposure. Do not allow the produce to remain in contact with the solution longer than necessary. Check circulation patterns in chlorination tanks to eliminate dead spots.

4) Change the water frequently. Chlorination efficiency is poor in dirty water. If necessary, wash very dirty produce with clean water before it comes into contact with the chlorinated water.

5) Practice good sanitation. Hose off the packing equipment and floors daily; remove any dirt and trash that has settled in the chlorination tank. Sanitize the equipment with a spray solution composed of four pints of 5.25 percent sodium hypochlorite solution in 10 gallons of water. As an alternative, steam clean the equipment with an approved detergent. Do not allow culls or decayed produce to remain in or around the packing house.

6) Protect workers. For their safety and comfort, workers must be protected from the chlorine fumes associated with excessively high levels of chlorine. If the

Confirm 2F for Tufted Apple Bud Moth Control

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

The USEPA has again granted a Section 18 Emergency Exemption label for the use of Confirm 2F (tebufenozide) against tufted apple bud moth (TABM) control on apple in certain New Jersey counties. The Section 18 label use of this material is limited to Burlington, Salem, Atlantic, Camden, Cumberland, and Gloucester Counties.

Confirm 2F is a new class of insecticide that mimics a natural insect molting hormone. When the target "worm" insect ingests Confirm, it will stop feeding within 24 hours and cause the insect to undergo a premature molt. Death occurs in about 3 to 7 days as a result of starvation and desiccation. This material does not have contact action; Confirm 2F must be ingested to be effective.

There are several key points for usage that are detailed on the Section 18 label and, of course, usage must be consistent with the label. These include, but are not limited to:

- Rate is 12-18 fluid ounces/Acre.
- Maximum of 4 applications (only 1 or 2 applications are needed for second generation TABM).
- Minimum of 100 gallon spray volume.
- Apply as a complete spray.
- The use of LATRON B-1956 is suggested to maximize coverage.
- Preharvest interval is 14 days.
- Reentry interval is 12 hours.

If you are going to use Confirm 2F against TABM this year, the proper timing for this material is approaching. The first application of Confirm 2F against the second generation of TABM should be made at about 20-30% egg hatch (2350-2450 DD after biofix) followed by a second application at about 60-70% egg hatch (2670-2740 DD). Confirm is also effective against codling moth but timings are different. Therefore, do not rely upon Confirm for CM or apple maggot control. As always, read and follow the label. □

CHLORINE TIPS FROM PAGE 2

amount of chlorine gas in the work area is great enough to cause worker discomfort, the amount of chlorine being used is well above that required for proper postharvest sanitation. If air monitoring equipment is not available, chlorine concentrations can be checked by asking a person who has not been desensitized by the odor to enter the work area. If he or she can smell the chlorine, the level is probably adequate. The concentration is too high if workers are continually irritated by the odor.

7) Remember that chlorination will not solve all your problems. Even the best chlorination program may not be sufficient to prevent all postharvest decay. Prompt handling, proper sanitation, and rapid cooling should all be part of your postharvest disease management program. Produce infected in the field or otherwise damaged cannot be saved by chlorination.

Submitted by Jerome L. Frecon, Agricultural Agent

Information on postharvest disease control and handling of peaches is detailed on pages 112 and 113 of the 1998 Commercial Tree Fruit Production Guide for New Jersey. A copy of the HTH Chlorine label, and a fact sheet on Postharvest Skin Discoloration is available from my office by calling 609-863-0110. □

Tips to Keep Employees Cool When the Heat is On

Reprinted from Suffolk County Agricultural News, Cornell Cooperative Extension. Source: Coastal's Employee Handbook Heat Stress: Beat the Heat. For a free sample handbook e-mail coastal.com

1. To prevent heat rash, keep skin dry and clean and wear loose-fitting clothing.
2. To minimize harmful sun exposure apply sunscreen both before and during work in the sun.
3. Work in the shade whenever possible.
4. Because the body perspires, replace vital body fluids with five to seven ounces of water every 15-20 minutes.
5. If you or a co-worker is suffering from heat cramps, move into the shade and drink lightly (1%) salted water.
6. Some heat exhaustion symptoms are clammy, cool, moist and pale skin; fatigue or weakness; heavy perspiration; intense thirst from dehydration; low to normal blood pressure and anxiety.
7. If you suspect heat exhaustion, move the victim into the shade, remove or loosen clothing, elevate the victim's legs, and give the victim lightly salted water.
8. Heat exhaustion victims must be given immediate medical attention.
9. Early symptoms of heat stroke are high body temperature (above 103°F), no perspiration on skin, red or flushed skin, rapid pulse, difficulty breathing, and constricted pupils.
10. As with heat exhaustion, heat stroke victims must be given immediate medical attention.

Submitted by Gary Pavlis, Ph.D., Agricultural Agent □

All farmer grant applications must be postmarked by December 11, 1998. Decisions will be announced in March 1999. To obtain a grant application, visit our website at <http://www.uvm.edu/~nesare/>, call 802-656-0471 or write Northeast SARE at 10 Hills Building, University of Vermont, Burlington Vermont, 05405-0082. □

SARE GRANTS FROM PAGE 1

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