Cornell Cooperative Extension

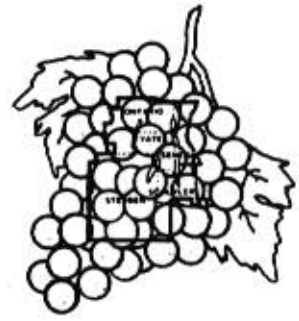
Grape Program in Ontario, Schuyler, Seneca, Steuben, and Yates Counties

County Office Building
110 Court Street
Penn Yan, NY 14527-1130
315-536-5134
FAX 315-536-5117

FINGER LAKES VINEYARD NOTES

NEWSLETTER '95 #5 May 23, 1995

Written by David V. Peterson, Area Extension Grape Specialist, Finger Lakes Grape Program (315) 536-5134, and Tim Weigle, Area Extension Grape Pest Management Specialist for the Finger Lakes and Lake Erie Grape Programs (716) 672-6830. Edited by David V. Peterson.



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CURRENT SITUATION

David Peterson

After a late bud break, the growing season is well underway in the Finger Lakes. Average bud break was about 1-2 weeks later than average, depending on variety and location. As was suspected, bud damage was generally minimal. In fact, growers should probably be concerned about the large number of shoots in many vineyards, which indicates that there is considerable potential for overcrop situations. Many vineyards have considerably higher shoot numbers than last year, and most of these are from primary buds. Last year, many shoots arose from less fruitful secondary buds, yet yields for most Native American varieties were generally quite high. For this reason, growers should consider either doing some additional follow-up pruning at this time, or be preparing to estimate crop and machine-thin in July if necessary. We will be having a summer meeting on this topic if it appears that overcropping is a potentially widespread problem. Overcropping could be particularly devastating to vines if the pattern of low rainfall persists much longer into the season.

LABOR NOTES

David Peterson

With increasing difficulties in getting vineyard work done with local labor supplies, two items are worth mentioning here.

First, if you have difficulties in getting local labor, the NYS Dept. of Labor has a resource person to assist you in getting help. Brandon Mallory has assisted several local growers in recent years in getting both local and migrant labor. He can be reached at (315) 331-2011 or by Fax at (315) 331-7301. Brandon is not a regulatory person, his job is just to assist you in obtaining rural labor services.

The second item of interest regards a legislative amendment to farm labor regulations for migrant labor (regarding housing). A number of changes are proposed, relating to such things as requirements for heating, bathrooms and kitchen facilities. The State Department of Public Health is currently requesting public comment on the proposed changes. As we move towards increased use of migrant labor, growers will have to address local housing needs for the workers. If you are interested in further information on this amendment, I have a detailed listing of the proposed changes in my office and would be happy to send a copy to anyone who requests it. The NYS Wine Grape Growers also have a copy of this information. They may be reached by calling (315) 536-2853.

ROUNDUP® LABEL CHANGE

Roundup® has a new supplemental label for the Northeast and Great Lakes Regions. This new label makes it legal to apply Roundup® up to within 14 days of harvest. Formerly, the label stated that it could be used up until the end of grape bloom. The label does maintain, however, that contact with foliage or green tissue should be avoided. In addition, it recommends that shielded sprayers or wiper equipment be used when Roundup® is used past the end of grape bloom. Growers should be aware that later season contact with grape foliage is more likely to result in serious injury to the vine. Early in the season, Roundup® generally causes only local injury (primarily just the area it contacts). Later season contact results in more translocation to other parts of the vine, and injury may be evident over the entire vine even if contact is limited to a few leaves.

ROUNDUP® FOR ROW MIDDLE APPLICATIONS

David Peterson

With the dry early season, growers must be concerned about potential water stress to vines. Although water is unlikely to be currently limiting growth of mature vines, vineyards are considerably drier than average for this point in the season. Therefore, growers may wish to consider applying Roundup® to row middles somewhat earlier than normal this year.

Roundup® applications to vineyards have become a practical, cost effective, and common approach to controlling weeds in row middles in the Finger Lakes. When properly timed, one application can take the place of numerous passes that would be required for cultivation or mowing. The erosion hazard is also greatly reduced as compared to cultivation, and competition for water and nutrients is less than with a permanent sod cover. The savings in time and wear and tear on equipment and the benefit to the vines makes it easy to understand why this practice has become so popular.

Proper timing depends on a number of factors including stage of weed development, type of weeds present, and weather conditions. A new supplemental label for Roundup® extends the legal time of application past the end of grape bloom, as it had been listed in previous years. The material must be absorbed by mature weed leaves to obtain maximum effectiveness, which explains why some growers have been frustrated with the level of control they have gotten when the application was made too early. The exception is with perennial grasses (quackgrass, orchardgrass) or some winter annuals that have green mature leaves very early in the spring. Since most vineyards are faced with pressure from a large number of different weed species, however, it is often advisable to wait until early to mid June in the Finger Lakes (close to bloom) to obtain maximum effectiveness and to avoid excessive regrowth. If existing weed growth is much greater than 6 inches tall, mowing prior to Roundup® application is desirable. Weather at the time of application should also be considered. The material should not be applied if rain is predicted within 6 hours of application, if heavy dew is present on the leaves, or if the wind speed is greater than 5 mph. Roundup® also works more slowly and may be less effective on weeds stressed by drought, or excessive heat or cold.

A low water volume approach (10 gallons water per sprayed acre surface) has generally been adapted by most growers, although it may be used with up to 40 gallons water per acre. The low water volume concentrate sprays also

allow a lower rate of Roundup® per acre to be used. The rate of Roundup® depends on the weed species to be controlled and the level of control desired. As low as 1 quart Roundup per acre in 10 gallons of water provides good control of many weeds and at least partial suppression of most others. Hard to kill perennials (field bindweed, for example) generally require higher rates of Roundup®. Extremely hard to kill vegetation such as poison ivy is probably best handled with a separate spot application with a higher concentration. Factors discussed in the previous paragraph should also be considered in the decision.

Addition of a nonionic surfactant will enhance effectiveness. For surfactants containing more than 50% active ingredient, use 2 quarts per 100 gallons spray solution. For surfactants containing less than 50% active ingredient, use 4 quarts per 100 gallons spray solution.

The width of the boom and spray pattern depends on the row width and the width of the band sprayed under the trellis. Flat fan or low pressure nozzles arranged to obtain 30-50% spray overlap is desired. Some overlap of the under the trellis spray band is also recommended if much under the trellis vegetation is present.

The active ingredient in Roundup® is glyphosate, and other glyphosate products are now on the market. Be sure to check the label to be sure that the glyphosate product that you purchase is labeled for use in vineyards.

CHEMICAL SUCKERING WITH GRAMOXONE

David Peterson

Although chemical suckering is a standard yearly practice for many Finger Lakes grape growers, growers must consider the serious trunk injury that occurred in many varieties in the 92-93 and 93-94 winters. If trunks were not renewed in 1994, consider not using chemical suckering this year so that new trunks can be retained. Although most vinifera and extremely tender hybrids were renewed last year, I have also seen many severely trunk injured Aurore and Niagara vineyards that were not renewed last year. One final note, trunk renewals that were retained in 1992 and 1993 are likely to be severely injured even though they are young trunks. In fact, these renewals are likely to be even more severely injured than somewhat older trunks. Therefore, growers should be replacing these trunks as soon as possible.

Chemical suckering with Gramoxone is now the standard suckering practice in Finger Lakes vineyards that are not being renewed. Hand suckering is a laborious, time consuming task that may be good for one's waistline, but can be accomplished more quickly and often more economically by using Gramoxone.

The timing, rate and need for multiple applications of Gramoxone are variety dependent and are also affected by age of the vines and past suckering practices in the vineyard. While satisfactory results have been obtained with both American and hybrid species, the results have generally been better with hybrids. Most growers have continued to sucker viniferas by hand, since a few are retained almost yearly for trunk renewals. Hybrids that have many suckers, such as deChaunac, have had excellent results with chemical suckering. American varieties tend to have fewer suckers than most hybrids and the appearance of these suckers is often more staggered through the season, rather than an initial prolific burst of suckers that cover the trunk on some hybrids. Younger vines also tend to have more suckers than older vines, and vines that have been clean suckered for many years have fewer suckers than those where a few have been allowed to grow. In fact, vineyards that have been faithfully clean suckered over a number of years frequently are difficult to get suckers on when they are needed for trunk renewal.

The best approach for most varieties and most situations is to start early. The longest suckers should be no longer than 8 inches, which means that many will be only an inch or two long. For many hybrid varieties, this occurs in mid- to late May in the Finger Lakes. The timing is often somewhat later for American varieties, especially if few suckers are present early. Sucker growth is generally much more

rapid than other shoot growth, so the optimum time of application may be restricted to just a few days.

Gramoxone Extra is labeled for chemical suckering at 2-3 pints per surface acre. Recommended water volume is 30-50 gallons per treated surface acre. Use flat fan nozzles at a pressure of 30-50 PSI.

The number of applications depends on the variety, the past suckering program, the timing of the first spray, and the need for trunk renewals. Two applications when properly timed have given results comparable to hand suckering in most vineyards. The timing of the second spray should be based on the same criteria as the first, when the new suckers are no longer than 8 inches in length. For some American varieties that do not produce a large number of suckers, a second spray may not be economically justifiable. This should be evaluated on a vineyard by vineyard basis. Not all Concord vineyards, for example, produce the same number of suckers. If just a few suckers are present in the regrowth, the second spray might be delayed or not done at all. It should be kept in mind, however, that those suckers that are much longer than 8 inches will be poorly controlled by the Gramoxone, and will likely need to be removed by hand. For varieties that sucker prolifically, not doing a second application will allow regrowth that can be used for trunk renewals. If renewals are needed on varieties that do not normally produce many suckers, however, this may not be a good approach.

Timing of Gramoxone sprays and the need for additional applications can also be influenced by weed growth under the trellis. For example, a small amount of sucker regrowth may not justify a Gramoxone application by itself, but some existing weeds in the spray zone might make it more desirable.

Chemical suckering generally does not completely eliminate hand labor. Suckers above the spray zone will still have to be removed by hand. With high cordon trained vines, there is considerable area above the spray zone. Within the spray zone, new suckers may occur even after a second application. This may not justify an additional application, but hand removal may be desirable.

EARLY SEASON INSECT MANAGEMENT

Tim Weigle

Wide spread use of the Grape Berry Moth Risk Assessment protocol has resulted in a decrease in the amount of insecticide applied to New York State vineyards. Growers who greatly decreased or eliminated insecticide use have been reporting an increase in secondary insect pests in the vineyards. While most of the secondary insect pests have only one generation a year and produce primarily cosmetic damage, there are some of these pests can which cause economic levels of damage on a sporadic basis. Leafhopper is the best example of a secondary pest which now requires yearly monitoring to ensure populations do not reach economically damaging levels. However, like most secondary pests, insecticide applications are not needed on a yearly basis to management populations.

Unlike leafhopper, which can have several generations per year and has the potential to build to economically damaging levels during the growing season, most secondary insect pests have only one generation per year and by the time you see the damage, the insect is gone.

One insect pest that has only one generation per year but has become more prevalent in New York State is the Grape Rootworm. After the introduction of insecticides, grape rootworm was reduced to a sporadic pest in grapes. However, growers have reported an increase in incidence of grape root worm in their vineyards. Feeding by the larval stage on the grape root system can cause stunting, and in severe cases, death of vines. A decline in vine vigor for no apparent reason is often the growers first indication that there is a problem. Not until we start checking vines do we find feeding by the grape rootworm. Feeding by the adult stage of grape rootworm is generally concentrated among the leaves of sucker growth and the lower canopy. Adult grape rootworm will also feed on immature berries in years of heavy infestations. The best way to

determine if grape rootworm is present in a vineyard is by monitoring leaves for the characteristic chain-like feeding pattern caused by the adults.

Management of this pest is not called for every year. Monitoring of the vineyard will help determine if some method of management is needed. While the adult stage is the least destructive, it is during this stage that the grape rootworm is most easily managed. Treatment for this pest, when needed, should be done when adult activity is first seen, usually late May to mid-June. Refer to Grape IPM Insect Identification Sheet No. 7 Grape Rootworm, for pictures and more information. This and other disease and insect fact sheets are available from the Finger Lakes Grape Program Office.

EARLY SEASON DISEASE MANAGEMENT

Tim Weigle

Wayne Wilcox did an excellent job in covering the major diseases in the last newsletter so I will not discuss black rot, powdery mildew and downy except to say that management of primary inoculum is the key. Knowing the biology of the diseases, what materials can be used, and how they are used effectively, calibrating your sprayer, and focusing on primary inoculum will enable you to implement a practical disease management program.

One disease that is generally around but does not get a great deal of attention unless conditions favor its development is Angular Leaf Scorch. This disease overwinters in infected leaf tissue and is generally worst during years of high rainfall early in the growing season. Up to this point the spring has been relatively dry and this disease has not gotten a lot of attention. Mancozeb fungicide is applied for black rot beginning at 3-5 shoot growth are also effective in management of angular leaf scorch. 'Aurore', 'Ventura', 'Rougeon' and 'deChaunac are particularly susceptible to angular leaf scorch and may require more monitoring.

CODE-A-PHONE IS BACK

After technical problems and delays in getting the phone lines switched over last year, our grape code-a-phone is back in operation for this season. The code-a-phone is essentially a recorded message that gives information on pest updates or alerts, infection periods recorded at some of our weather stations, timing of selected sprays, or other time sensitive information related to managing vineyards. Meeting announcements will also be on the code-a-phone message. Messages are updated at least twice a week, usually on Monday or Tuesday and again on Thursday or Friday.

The operation will be somewhat different than previous years in a couple of ways. First, the phone number will be the same as my normal office number (315) 536-5134. However, the code-a-phone will be hooked up only during non-office hours. Therefore, the code-a-phone will be available on Monday - Friday from 4:30 p.m. to 8:00 a.m. and at anytime on the weekends. If you call from 8:00 a.m. to 4:30 p.m. on weekdays, either I or a secretary will answer. Another difference this year will be that you may leave a message after the code-a-phone message. If you have a touch tone phone, you may even skip over the code-a-phone message and leave me a message. To do this, simply press the * button at any point during the message playback, and you will then be able to leave a message. Please be sure to include your name, phone number, and the times of day that you can be reached. If you are not normally near the phone during my office hours, I can still return your call in the evening hours.

The code-a-phone will be operational beginning at 4:30 p.m. on Friday May 26.

UPCOMING MEETINGS

June 20-21. INTERNATIONAL SYMPOSIUM ON CLONAL SELECTION. Oregon Convention Center, Portland Oregon. In conjunction with the American Society for Enology and Viticulture Annual Meeting on June 22-24 (see below). Contact: American

Society for Enology and Viticulture, P.O. Box 1855, Davis, CA 95617.

June 22-24 AMERICAN SOCIETY FOR ENOLOGY AND VITICULTURE ANNUAL MEETING. Oregon Convention Center, Portland Oregon. Contact: American Society for Enology and Viticulture, P.O. Box 1855, Davis, CA 95617.

July 19-20. "ALTERNATIVE WINEGRAPE VARIETIES" SYMPOSIUM (Features Viognier, Sangiovese, Chardonel, Norton and other "alternative" varieties). In conjunction with the American Society for Enology and Viticulture/Eastern Section Annual Meeting on July 21-22. Omni Hotel, Charlottesville, Virginia. Contact: Dr. Tony Wolf, Virginia Tech, 695 Laurel Grove Road, Winchester, VA 22602 Tel: (703) 869-2560, or Dr. Don Splittstoesser, Dept. of Food Science and Technology, NYSAES, Geneva, NY 14456-0462.

July 21-22. AMERICAN SOCIETY FOR ENOLOGY AND VITICULTURE/EASTERN SECTION ANNUAL MEETING. Omni Hotel, Charlottesville, Virginia. Contact: Dr. Don Splittstoesser, Dept. of Food Science and Technology, NYSAES, Geneva, NY 14456-0462.

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