



FINGER LAKES VINEYARD NOTES

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GRAPE PROGRAM PHONE & FAX NUMBERS AND E-MAIL ADDRESS

As a reminder, the phone number for the Finger Lakes Grape Program has changed within the past year. The number is (315) 536-5134. If you wish to call Cornell Cooperative Extension - Yates County, number is (315) 536-5123. Although they can transfer calls to the Finger Lakes Grape Program, we request that you use our number. If you wish to send a Fax to either the Finger Lakes Grape Program or Cornell Cooperative Extension - Yates County, the number is (315) 536-5117. For those with access to E-Mail, contact me at david_peterson@cce.cornell.edu.

WINTERIZE YOUR SPRAYER

Tim Weigle

Taking a little time now to prepare your sprayer for winter storage has been shown to increase the life of the sprayer and reduce the need for repairs. Cleaning the sprayer before parking it for the winter will prevent damage to sprayer components and reduce cross contamination of pesticides (especially important if sprayer is used in more than one crop). Personal Protection Equipment (gloves, coveralls, eye protection, etc.), as listed on the chemical labels should be used when cleaning the sprayer.

Steps to clean a sprayer.

1. Flush the sprayer with clean water.
2. Add cleaning solution to the tank and run agitation to ensure the entire system is being cleaned. Check the labels of the pesticides used during the growing season for specific cleaning solutions and instructions. For most fungicides 1/4 lb of powder detergent per 25 gallons of

Helping You Put Knowledge to Work

water is adequate for cleaning. Organophosphate and carbamate insecticides may be detoxified by adding household ammonia to the cleaning solution at a rate of 1 quart per 25 gallons.

3. Remove spray nozzles and flush the system twice with clean water.
4. Use detergent solution to clean nozzle tips and screens, if applicable. Dry these, and store metal tips and screens in a light oil such as diesel fuel.
5. Add 1 to 5 gallons of light weight oil to the rinsing water used in the final flushing to form a protective coating throughout the entire system.
6. Any hoses for hand guns, etc., should be removed and coiled around a large round object, such as a basket. They should never be hung on a hook or nail as this will cause a permanent crease which will reduce water flow through the hose.
7. Clean the outside of the entire sprayer.
8. If possible, store the sprayer inside during the winter months. If this is not possible some sort of cover should be used over the sprayer.

Steps to winterize a sprayer.

The following steps are for an air-blast type of sprayer although many of the steps are applicable to all types of sprayers.

Pump

1. Lubricate the pump. If the drive works in an oil bath, operate the pump long enough to warm the oil and then drain the crankcase. Refill to the correct level with fresh oil.
2. Flush out the pump and all plumbing lines with clean water. Drain the pump and lines completely. (This step done when cleaning) Leave all line valves open.
3. Check the condition of the pump valves, seats, cups and cylinders.
4. Check the condition of the regulator valve and seat.
5. Order any new parts that are required.

Engine

1. Operate the engine long enough to bring the oil up to normal operating temperature.
2. Drain the crankcase.
3. Fill the crankcase with new oil.
4. Replace the oil filter, if one is fitted.
5. Service the air cleaner.
6. Operate the engine again to make sure all working parts are lubricated with fresh oil.
7. Remove the spark plugs. Add 1 oz of motor oil to each cylinder. With the plugs out and the ignition switch off or magneto grounded, turn the engine over a few revolutions with the starter or crank.
8. Drain the fuel tank, sediment bowl, and carburetor.
9. Order any repair parts required.

Battery

1. Remove the battery from the sprayer. Clean it, give it a full charge, and store it in a cool dry place for the winter.

Drives

1. Lubricate all bearings as though preparing for a day's spraying.

These suggestions for cleaning and winterizing a sprayer came from the following sources; Sprayer Cleaning, Penn State Fact Sheet PM-72, by Donald R. Daum, Professor, Dept of Ag Engineering and Publication 1625, Air-Blast Orchard Sprayers-An Operation and Maintenance Manual, Agriculture Canada.

NY Grape Growers Speak Out on PPE

Charlotte W. Coffman

In 1994, grape growers across New York State participated in a survey on the use and care of personal protective equipment (PPE). This survey was developed by the Department of Textiles & Apparel at Cornell University and was paired with a larger survey on pest and pesticide use administered by the Cornell Pesticide Management Education Program. One hundred forty nine growers completed clothing questionnaires at applicator training meetings or via mail. Their answers are summarized below.

The good news is...

- At least 75% of the respondents wear layers of clothes (long-sleeved shirt over undershirt, coverall over jeans, etc.). Each clothing layer decreases the wearer's exposure to pesticides.
- Almost all growers worn coveralls for extra protection.
- More than 90% reported wearing chemical-resistant gloves "nearly always" or "occasionally depending on the pesticide."
- Respirator compliance was commendable as most handlers/workers used some type of respiratory protection when instructed by the pesticide label.
- About 90% reported washing their spray clothing daily. Grape growers also wash contaminated clothing **separately** from the family laundry (86%) and wash contaminated clothing more than once (24%).

Improvement is still needed...

- Leather gloves should be replaced by the type of glove described on the pesticide label. Leather absorbs pesticides and can not be thoroughly cleaned. About 16% of those surveyed "nearly always" wear leather gloves and another 68% wear them "occasionally depending on the weather."
- Baseball-style caps should be replaced by hard-hats, hoods, or plastic hats with broad brims. Contaminated baseball caps can be a source of continued exposure as they are worn for many occasions, but rarely washed.
- Limited-use (disposable) garments should be discarded after eight hours of use, but only one-third of the wearers comply. The average wear time was 17.4 hours, with 3%

of the respondents admitting that they use the coveralls "until they wear out."

- More research is needed in material development and garment design. The reasons cited for not wearing protective equipment were: heat stress, movement restriction, disagreement with the requirement, and expense.

The gray areas...

- Some confusion exists over the PPE needed for mixing and loading. Many people wear respirators and chemically-resistant coveralls while performing these tasks but few wear the recommended aprons (about 10%) and rubber boots (30%). Some growers seem unaware that pesticide labels carry specific PPE instructions for mixing and loading.
- Replacement of chemically-resistant glove is irregular with most growers discarding gloves "when a leak was detectable" or "when they wear out." A general recommendation is to replace gloves after 40 hours of use, but interpretation of this is clouded as growers try to evaluate "use" (any time you wear the gloves or only when they are in direct contact with the pesticide). Thus, our results were not definitive and more work is needed to clarify terminology and establish replacement rates.

In general, NY grape growers are concerned about their health and the health of their workers and families. The majority attempt to comply with the regulations despite some confusion over label statements and a concern with heat stress and over-regulation.

Thanks to all who participated in this study

This survey was funded by The National Agricultural Pesticide Impact Assessment Program United States Department of Agriculture.

Copies of the full report, *Pest and Pesticide Use and Care of Personal Protective Equipment for Grape Production in New York State for 1993* can be obtained from the Pesticide Management Education Program, Comstock Hall, Cornell University, Ithaca, NY 14853.

JUICE GRAPE PRICES IN A DOWN CYCLE AND WHAT TO DO ABOUT IT

Barry Shaffer

Concord prices peaked in 1989 and have been trending downward since then. In the March 1995 newsletter I discussed the juice grape cycle and on average it is 12 years from high to high and from low to low. The last low was in 1984 so chances are growers need to be competitive at today's cash market prices for at least the next couple of years. The average grower in 1995 will be looking at less cash coming in compared to 1994. The average yield for 1994 for the Lake Erie Grape Farm Cost Survey (LEGFCS) was 7.9 tons/acre. I'm estimating 6.0 tons for the 1995 ave! 1994 average cash inflow say 7.9 t/a times \$175/ton=\$1383 an acre. 1995 estimated cash inflow 6 t/a times \$165/ton= \$990 an acre or a **decrease** of over 28%. What can a grower do? Here are some guidelines to follow:

1. **Cost control** - Reduce operating expenses while keeping yields up. Don't cut corners and lose more in production than you save. Keep soil fertility up! Smaller growers may want to do more of the pruning themselves if possible.
2. **Defer capital spending** - Develop a capital spending plan. Have a wish list of capital purchases you'd like in the next few years. Then estimate costs and priority ranking for each proposed capital purchases. Most growers won't need to use Sec. 179 expensing for tax purposes this year.
3. **Reduce overhead costs** - For example, look at insurance costs maybe you can save money by increasing your deductible. Spreading overhead over more acres is another common tactic.
4. **Reduce debt!** However don't try to prepay mortgages (increasing cash outflow) or other debt.
5. **Don't have more than 10% nonbearing acreage** - Nonbearing vineyards are a drag on cashflow. A high percentage of nonbearing acreage (over 20%) is tough to live with!
6. **Set financial goals!** - Prepare a cash flow budget for 1996.
7. **Make use of comparative data like LEGFCS** - Growers can learn a lot from other growers and from general trends in the industry.
8. **Do the little things right** - Focus your attention on the details. Don't just complain about pruners, train and supervise them! Two growers spray the same fungicides, both pay the same for the material, one gets good control because of good coverage, the other farmer doesn't because of poor coverage.
9. **Change!** - Be open minded and try something new in your operation for 1996.
10. **Reduce family living expenditures** - A dollar saved for family living is the same as a dollar saved for the farm.

FAMILY LIVING EXPENSES, PROFITABILITY, AND CASH FLOW

Barry Shaffer

How much does an average farm family need for family living expenditures? How much does your family spend in a year? \$25,000? \$30,000? Would you believe \$36,000 or higher? Cornell's 1994 Dairy Farm Management Summary average of 321 farms showed personal withdrawals and family expenditures of \$41,361!

Can your farm support family living expenses of over \$40,000 a year? Farms that supported families 20 years ago may not be able to support one today. Growers worried about cash flow difficulties should look at ways to reduce family living expenditures.

Profits are needed in order to pay for family living and for principal repayment. Your farm can be profitable and not meet the needs of the family. Here is a simple example:

	Profitability	Cash Flow
Farm Receipts	\$120,000	\$120,000
Appreciation	15,000	-----
Change in inventory	5,000	-----
Non-Farm Income	-----	14,000
Money borrowed	-----	22,000
Asset sales	-----	2,000
Change in Accts. Receivable	<u>7,000</u>	-----
Value of production	\$147,000	Cash inflow \$158,000
Cash farm expenses	\$95,000	\$95,000
Depreciation	16,000	-----
Principal Payments	-----	30,000
Capital Purchases	-----	10,000
Family Withdrawals	-----	40,000
Change in Accts. Payable	12,000	-----
Change In Prepaid Expenses	<u>6,000</u>	-----
Cost of production	\$129,000	Cash outflow \$175,000
	Profit	\$18,000

Beginning cash reduced \$17,000

This farm used \$17,000 more in cash than it generated. Much of the profitability is due to appreciation. **Appreciation does not help cash flow** unless you sell the appreciated assets, i.e. land. Ways to improve cash flow include increasing farm receipts, reducing inventories, reducing capital purchases, and reducing family withdrawals. Notice that principal payments take up a large chunk of cash. By the way, using cash accounting for tax purposes, Schedule F profits are \$120,000 (farm receipts) - 95,000 (cash farm expenses) - 16,000 (depreciation) = \$9,000 minus any accelerated depreciation on the \$10,000 of capital purchases. So we have two different profits and a negative cash flow for this example.

Reducing fixed costs is one area that would help both profitability and cash flow. Many high profitability farms have lower than average fixed costs. The challenge of obtaining the most profitable yield level may be more interesting than the challenge of minimizing equipment costs, family living, overhead, and interest, but the potential for increasing returns to management is greater in the fixed cost arena. Think of fixed costs as something you can change over time!

FARM TAX SCHOOLS

Farm Tax Schools will be offered in several locations in the coming weeks. The topics should be relevant to all grape growers and will include:

- Changes in 1995 Tax Rates, Exemptions, Deductions, & Forms
- New and Proposed Tax Legislation, Tax Regulations and Rulings Affecting Farmers and Individuals
- Tax Management and Reporting Recommendations
- Depreciation and Social Security Updates
- New York State Tax Legislation And Changes

The meetings will be held from 9:15 am - 3:30 pm on the following dates and locations:

December 14. Holiday Inn, Waterloo. Contact: Mike Stratton, 158 S. Main Street, Mt Morris, NY 14510-1595. (716) 658-3250.

December 15. Treadway Inn, Owego. Contact: Carl Crispell, 56 Main Street, Owego, NY 13827-1588. (607) 687-4020.

You must preregister by contacting the person listed above for the date and location where you wish to attend.



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