



Green Mountain Local Section ACS

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Green Mountain Section website:
<http://membership.acs.org/g/greenmt/index.html>

Officers 2004

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PR/Web Master *Fiona Case*
NCW Coord... *Larry Marzec-Gerrior*
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Announcement & Events:

Oct 31 – Nov 3, 2004 – 33rd
Northeast Regional Meeting (NERM
2004) Hyatt Regency, Rochester, NY

November (TBA), 2004 – Dr.
Fiona Case will talk on “**Chemistry
in Your Bathroom -Computer
modeling of nanostructured fluids:
liquid soaps and detergents**”

December Holiday Party (DTBA)



ACS website: www.Chemistry.org

October 2004 Meeting

“The Phosphorus Problem in Lake Champlain and Its Solutions”

Date: Wednesday 13, 2004
Time: 7:30 pm
Location: ECHO Center, Burlington
Members will be allowed to view the museum before the talk. The museum is a short walk from where we will be having dinner.

Dinner before talk: 5:30 pm at Ice House Restaurant
RSVP Willem Leenstra via phone 802-656-0273
or e-mail (willem.leenstra@uvm.edu)

ABSTRACT

Excessive phosphorus concentrations in Lake Champlain are causing severe algae blooms in some areas of the lake, and levels of this nutrient need to be reduced lake-wide to improve water quality. Vermont, New York, and Quebec are cooperating on the management of phosphorus in Lake Champlain. We have developed water quality standards for phosphorus, measured the sources of phosphorus to the lake, modeled its transport throughout the lake, and reached agreements on the maximum allowable phosphorus contribution from each sub-watershed in each state and province. With this management framework in place, it is time to renew our efforts to reduce phosphorus loading to Lake Champlain by implementing a variety of specific actions in the watershed to control point and nonpoint sources.

BIOGRAPHY

Eric Smeltzer
Environmental Scientist Vermont Dept. of Environmental Conservation
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I received a B.S. degree in biology from Bates College (1976) and an M.S. degree in limnology and ecology from the University of Minnesota (1980). I have worked for the Vermont Department of Environmental Conservation since 1980 with a major focus over the past 15 years on the phosphorus problem in Lake Champlain. I have helped develop a phosphorus reduction strategy for the lake including the establishment of phosphorus criteria and loading targets, the identification of necessary watershed management actions, and the monitoring of progress. I am a member of the Technical Advisory Committee of the Lake Champlain Basin Program.

Welcome to Our New Members

Shaina Byrne – UVM
Liviu Muresan – Richmond VT
Michael Winchell – Stone Environmental
Adrian Wadley – Stone Environmental
Brooks Bond-Watts – Charlotte VT

Summary of Last Meeting:

Shelburne Winery wine maker, Scott Prom, gave us an informative and detailed tour of the winery from the vineyard to final product.



The Shelburne winery sold approximately 800 bottle of wine last year and plans on selling 10,000 bottles this year, expanding to 60,000 bottles within three years.



It is fairly expensive to grow grapes in Vermont, because of the harsh climate and pests. Shelburne Winery is currently growing 7 varieties of grapes on 2.5 acres of leased land. They are still experimenting with which grapes will grow the best in the VT climate and make a good tasting wine. The vineyard mostly grows French hybrid white grapes, which have performed well in VT.



Two main factors determine if the grapes are ripe for picking: the sugar level (as measured with a refractometer) and the acid range. The sugar level will eventually determine the alcohol content of the wine (preferably between 10-12%). The pH is an issue with grapes grown in VT, because it is typically high and needs to be precipitated out with potassium bicarbonate.

Shelburne winery also does well at making Ice Wines. These sweet wines require the high acidity for balance, because they have high sugar content.



The wines we sampled follow:

- Cayuga White (dry)
- Lakeview White (semi-dry)
- Coach Barn Red
- New World Red (not available in Stores)

Sheburne Vineyards also grows a few deliciously sweet table grapes which we all got to samples.



All who attended this tour had a very informative and tasty time!

If you are interested in purchasing these wines you can visit the Winery's web site:
www.shelburnevineyard.com