

# From Vine to Bottle: Making Decisions about Canopy Management

*Taste the wines, we'll talk about the vines.*

**August 9, 2012**
4:00-6:00 (Includes wine tasting)
4:00 wine tasting at:
**Food Science Laboratory**, 630 West North Street NYSAES, Geneva NY
**CLEREL Laboratory**, Rte 20, Portland NY
5:00 Webinar (Open to growers/winemakers from all regions, link will be sent out to those who register)

4:00 – 5:00 Taste experimental wines (Riesling and hybrid) from canopy management experiments (Geneva and Portland Lab only)
5:00 – 6:00 Lessons learned from five years of canopy management studies.

- Introduction: Canopy Management Costs and Benefits. **Tim Martinson,** Dept. Horticulture
- How timing and intensity of leaf removal, shoot and cluster thinning affected fruit composition and sensory characteristics. **Justine Vanden Heuvel,** Dept. Horticulture
- Economics and consumer 'willingness to pay'. **Todd Schmit,** Dyson School of Applied Economics and Management

*These research and outreach projects funded by the Northeast Sustainable Agriculture Research and Education Program and the New York Farm Viability Institute*

From Vine to Bottle: Making Decisions about Canopy Management

*Taste the wines, we'll talk about the vines.*

# The best canopy management is no canopy management

When possible

- Canopy management costs money
- Canopy management often reduces yield
- Payoff: increased quality or marketability

## Inputs:

Labor

Potential Crop

## Output:

Riper Fruit, Better Wine

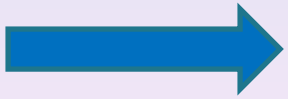
'Willingness to Pay'

# Canopy Management:

## *One Component of Cropping System*

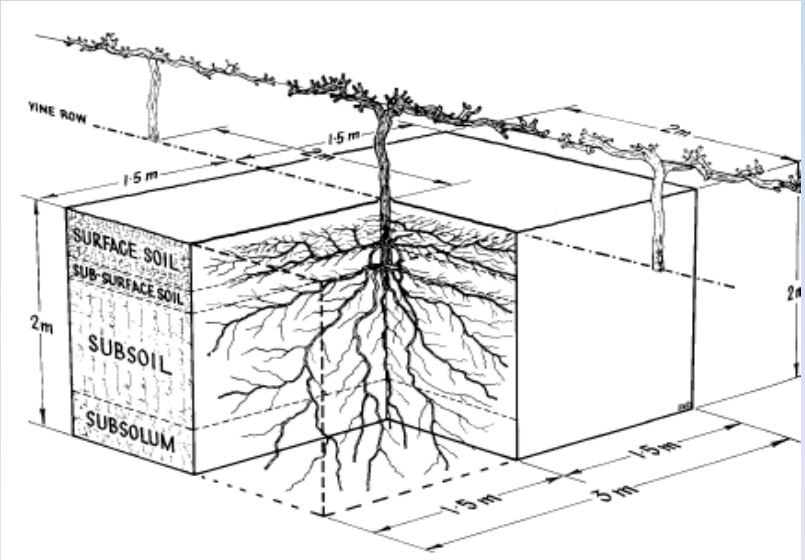
- Vineyard design (spacing, rootstocks, etc)
- Choice of Training System
- Pruning intensity
- Canopy and Crop Management
  - Shoot Number
  - Cluster Number
  - Berry Number
  - Leaf Removal
  - Shoot Tipping
  - Shoot Positioning

Yield components



Leaf Area/Light Environ.

# Vine Capacity and Vigor




- Soil depth, texture
- Water Holding Capacity
- Organic matter/Fertility

Vigor

= Rate of shoot growth

Vine Capacity

= Sustainable cropping level

Crop Load

= Ratio of exposed leaf area to crop

*Diagram courtesy Terry Bates, Viticulture Research Associate*
*Cornell Lake Erie Research and Extension Laboratory, Portland, NY*


Long Island Merlot
2-3 T/acre $1800-2400/Ton
$25 -$40 Bottle Price
2-3 T = $3600 - $7200/acre
Growing costs: $3-4,000/acre


Finger Lakes
Cayuga White
7-8 T/acre ($500-600/T)
$10 Bottle Price
7-8 T = $3500 - $4800
Growing costs: $1,500-1,800/acre

# Canopy Management for High Cordon (or Umbrella)?

- Shoot thinning (yes)
- Cluster thinning (yes)
- Hedging/Leaf Removal (often not practical)
- Shoot positioning (yes -combing)

# Canopy Management for VSP

- Shoot thinning
- Shoot positioning
- Basal Leaf Removal
- Hedging
- Cluster thinning

Cornell University

# Shoot and cluster thinning

Foch - unthinned

Foch - thinned

- How much does it cost?
  - Time
  - Crop
- What are the benefits?
  - Ripeness
  - WTP

# Shoot thinning Costs


## TIME

15 sec/vine

6x9 spacing = 806 vines/acre

202 min/acre = 3.35 hours/acre

X $12/hour = $40.20

## CROP

Cabernet Franc @ $1500/T

0.5 T/acre removed

$750 lower receipts

**Need: $790.38/acre more in ‘quality’**

# Farming for Flavors

**Grapes**


$$$?

*"does exhibit cherry and black currant flavors and aromas… but can be much more complex with integrated notes of blackberries, pepper, plum, tobacco, leather, and spice".*