2003 Wine Grape Cultivar Trial

Planting Sites

Supported by initially an IDALS Specialty Crop Grant, and currently by an Iowa Wine and Grape Commission grant.
## Cultivars & Selections

<table>
<thead>
<tr>
<th>New York:</th>
<th>Minn. / Wis.:</th>
<th>Cultivars not in 2002 planting:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rubiana (GR-7) NY73.136.17</td>
<td>La Crescent Prairie Star (\checkmark)&lt;br&gt;Frontenac Gris*&lt;br&gt;Swensen White**&lt;br&gt;Brianna*&lt;br&gt;MN-1211*&lt;br&gt;MN-1198*&lt;br&gt;</td>
<td>Cayuga White&lt;br&gt;Chancellor&lt;br&gt;De Chaunac (\checkmark)&lt;br&gt;Esprit&lt;br&gt;Landot 4511&lt;br&gt;Leon Millot&lt;br&gt;St. Vincent (\checkmark)&lt;br&gt;Vidal Blanc</td>
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<tr>
<td>NY76.0844.24*</td>
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<td>NY84.0101.04</td>
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<td>NY70.0809.10</td>
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\(\checkmark\) Trained to VSP

* Planted in 2004

** To be planted in 2005

The Northeast and Southeast R&D Farm plots also include the 15 cultivars from the 2002 planting.
2, 4-D Rating

Scale: 1 = none visible, to 5 = very severe
Plans for 2006

Crop

Acknowledgements:
Bernie Havlovic, Armstrong Farm
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Eli Bergmeier, Golden Hills RC&D

Students:
Ben Saunders
Lisa Smiley
Dennis Portz
Sustainable Weed Management Systems to Improve Soil Quality in Midwest Viticulture

Investigators:

- Iowa State University
  - Mr. Craig Dilley, Ph.D. grad. student, Dept. of Horticulture
  - Dr. Gail Nonnecke, Dept. of Horticulture

Funded by:
USDA Viticulture Consortium - East
Cornell University
Objectives

• Develop cultivation methods that manage weeds and improve soil quality.
  – Leading to more sustainable and economical grape production systems in the Midwest.

• Assess the effects of conventional and alternative weed management systems on soil quality.

• Determine the impact of weed management systems on both weed and grapevine growth and development.

• Develop a soil quality index for grape production systems in the Midwest.
Weed Management Treatments

• **Conventional herbicide program**
  – Pre-emergence & post-emergence herbicides

• **Mechanical cultivation**
  – Shallow tillage

• **Straw mulch**
  – Square bale flakes (~ 1.5” thick) laid down to provide a ~ 3 “ thick mulch layer

• **Living mulch**
  – Creeping red fescue (*Festuca rubra* ‘Pennlawn’) @ 4 lbs/1000ft²
2 Experimental Sites

• Iowa State University Hort Research Station, Ames, IA
  – Mature Vineyard (est. 1985) -
    • ‘Marechal Foch’
  – New Vineyard (est. 2002) -
    • ‘Marechal Foch’
Herbicide Treatment

Pre-emergence: Oryzalin + Roundup
Post-emergence: Roundup
Cultivation Treatment