Strategies for Success

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1629 First *vitis vinifera* vines planted at a Piro Indian Pueblo just South of Socorro.
New Mexico Grape Industry Statistics

- 1200 acres Vineyard
- Approximately 120 Growers
- 112 Different Varieties
- 50 Wineries
New Mexico Grape Growing Regions

Region 1
Region 2
Region 3
Region 4

New Mexico Grape Growing Regions:
1. Southern
2. Southeast
3. Central
4. Northern
New Mexico Map
In hilly areas, the best place to locate your vineyard is in the Thermal zone.
Springtime Daily Temperature Range

Source: NOAA
http://hurricane.ncdc.noaa.gov
Bud break and Harvest dates for 31 grape varieties
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Vitis Arizonica

Vitis Arizonica also called the “Canyon Grape” is a very common vining wild grape. The deep purple fruits can be found in moist canyons at moderate elevations. This type of grape is also known to be very drought tolerant/resistant.
Vitis Berlandieri
This grape commonly called “Heller’s Grape” or “Fall Grape” is primarily native in the southern portions of North America. It is very prominent in New Mexico, Texas, and Arkansas. It is noted for its tolerance against soils with a high lime content, however it is poorly adapted to grafting. It is commonly crossed with Vitis Riparia or Vitis Rupestris which produces a plant resistant to both lime and phylloxera.
Vitis Acerifolia

Vitis Acerifolia, aka the “Maple Leaf Grape” and the “Bush Grape” is somewhat of a bushy plant. It grows in ravines, stream bottoms, and on rocky slopes. It is particularly common in the panhandle of Texas and the Ute Lake area of New Mexico.
Vitis Riparia

Vitis Riparia, aka “Riverbank Grape” has the largest geographical range of all the Vitis species that are native to North America. The wild vine thrives along riverbanks, forest clearings, fence lines as well as along road sides. Anywhere it can get lots of sun exposure, and adequate soil moisture.
Vitis Rupestris
This type of grape is often found in the Southern and Western United States. It has many common names, some are: July, Sand, Sugar, Rock, and most widely used “Mountain Grape.” The plant is self supporting and does not grow in the shade. It has been found in draws that collect water, and less grazed creek beds.
Layout of a vineyard

- Find a base line
- Construct a perpendicular line
- Lay String and fill in with planting stakes

Using Pythagorean theorem
\[ a^2 + b^2 = c^2 \]
\[ 30^2 + 40^2 = 50^2 \]
Using this, the vineyard can be laid out
Layout of a vineyard

- Set In Row spacing
- Set Row spacing
- Lay String and fill in with planting stakes
Layout of a vineyard

- Fill out point rows
- Parallel to property boundary
Layout of a vineyard

- Finish point rows
- One in row plant distance (1)
Layout of a vineyard

- Finished plant stake layout
Tellis Setup

- Line Post
- Wire Clip to fit Planting Stake
- Planting Stake
- Ground Level
- Pair of catch wire
- Cordon wire

Dimensions:
- 12”
- 18-24”
- 45-48”
- 10-24”
Sprawl
Training System
Vertical Shoot Position (VSP)

Vertically positioned shoots
Cane-pruned vine
Vertical Shoot Positioning (VSP)
Training System
Sylvoz System

After winter pruning

Summer shoot growth, leaves not illustrated

spur

cane

cordon

HT 2.5mm

HT 2.0mm, moveable wires

nail

1.6m 5ft 4in

1.2m 4ft
Training System
Divided Canopy

Upward growing shoots

Cane

Downward growing shoots

Source: The Backyard Vintner, 2005
Training System
Lyre

4' (122 cm)

Source: The Backyard Vintner, 2005
End Post Assembly

Anchor End Post Assembly

- Vertical End post
- Line post
- Guide Wire
- Screw Anchor
- Catch Wires
- Cordon Wire
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Bare rooted vines must be kept cool and moist until planted. Sometimes dipped in wax to prevent drying.

In grafted vines, place graft union 2”-4” above the ground.
Planting the vine

1. Place vine close to the stake
2. Spread roots
3. Pack soil
4. Water immediately after planting
Selecting trunk shoot

1. Always safely tie the shoot before cutting off the others
2. We have to tie every 5 to 10 days
Select cordon shoots

1. Select two cordon shoots 6 to 8 inches below wire
2. Cut out trunk shoot at the wire
Cluster thinning the 3\textsuperscript{rd} year

1. Why are we pulling off these beautiful grapes?
2. We must leave only one cluster per shoot to keep the vines healthy
Multiple Trunks
Vineyard Disease and Pests

- Vertebrate
- Insects
- Nematodes
- Fungi
- Bacteria
- Viruses
- Weeds
Vertebrate
The only Way to keep em off
Insects

Flea Beetle
Insects

Grape Leafhopper  Potato Leafhopper  Three-Banded Leafhopper
Insects
Insects

Grape berry Moth
Fungi

Powdery Mildew
Fungus

Fruit Rot

Sour Rot

Phomopsis Fruit Rot

Black Rot
Fungi

Eutypa
Bacteria

Grown Gall (Agrobacterium)
Viruses

Grape Leave Roll Virus 1 - 9

Photo by Ed Hellman
Viruses

Grape Fan Leave

Arabis Mosaic
Pest Control
Application Devices
Pest Control
Application Devices
Pest Control
Application Devices
Pest Control
Application Devices
Pest Control
Cultural Practice
Pest Control
Cultural Practice
Pest Control
Cultural Practice
Pest Control
Cultural Practice
Pest Control
Cultural Practice
Pest Control
Cultural Practice
Pest Control
Cultural Practice
Weed
oh so romantic
Weeds and beautiful
Weeds or no Weeds
Weed Control
Chemical
Weed Control
Chemical
Weed Control
Mechanical
Weed Control
Mechanical
Weed Control
Mechanical
Weeds
Livestock to the Rescue
Pest Control
Cultural Practice
Red Grape Varieties

Photo Source: Eyewitness Companions “Wines of The World,” 2004
Pinot Noir

Zinfandel/Primitivo
Malbec

Dolcetto
Thank You
Nebbiolo

Tempranillo
Touriga Nacional

Merlot
Grenache

Mourvedre
Barbera

Carignan
White Grape Varieties

Photo Source: Eyewitness Companions “Wines of The World,” 2004
Riesling

Chardonnay
Gruner Veltliner

Marsanne
Hybrid Varieties

• Baco Noir, Chamboursin, Chelois, Corot Noir, Chancellor, Leon Millot, Regent

• Bianca, Chardonnell, Seyval Blanc, Siegfried, Traminette, Valvin Muscat, Vidal Blanc, Villard Blanc
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