What is a Vine Training System?

The system or form in which a vine is cultivated
Training Systems Vary in:

• Yield & quality
• Labor
  – Shoot positioning, leaf pulling, pruning, etc.
• Suitability for varieties
  – Upright or Procumbent shoot growth
• Suitability for climates
  – Wet, dry, cold, hot
• Cost of establishment
Some Common Training Systems

Vertical Shoot Positioned

VSP

Vertical Shoot Positioned
Spur Pruned
Bi-lateral cordon, vertical shoot positioned VSP

• An international standard

• Cordons at 38 to 42 inches above the ground

• One fruiting zone

Some Common Training Systems

Smart-Dyson

“Ballerina”
Smart Dyson

Pros

✓ Yield increases of about 50-70% over non-divided VSP

✓ Suitable to most high-vigor situations

✓ Efficiently utilizes trellis space
Watson Training System

Cordon wire at 66 inches
Young vines showing shoots trained to catch wires
Some Common Training Systems

Geneva Double Curtain

GDC

Photo: T.K. Wolf

Westover Vineyard Advising, LLC  vineyardadvising.com  fritzwestover@gmail.com
Geneva Double Curtain
Pros

✔ High yields; high phenols also possible

✔ Good fruitfulness reported

✔ Reduced vigor on downward growing shoots

Vertical Shoot Positioned
4 Parallel Cane Pruned
Vertical Shoot Positioned
4 Parallel Cane Pruned

Vertical Shoot Positioned 4 Parallel Cane
Vertical Shoot Positioned 4 Parallel Cane

View from under the fruiting zone
New Demonstration Vineyard in South Texas

• Grapevine training system evaluation for Blanc Du Bois

• Question:
  – What training systems produce highest yield without loss of quality
  – What is yield potential for Rio Grande Valley

Demonstration Vineyard in South Texas

Collaborative Project
  – USDA-ARS Weslaco
  – Texas AgriLife Extension
    • Fritz Westover
    • Juan Anciso
  – Rio Farms Inc.
    • Andy Scott
Vertical Shoot Positioned
Spur Pruned

Vertical Shoot Positioned
4 Parallel Cane Pruned
Watson Training System

Geneva Double Curtain
Pruning in Rio Grande Valley – February 2011
Advanced training in year one

Pruning after first leaf – Feb. 2012
Satellite Training System Demonstrations

- Training systems demonstration in Weimar, TX
  - Blanc Du Bois
  - VSP, cordon, spur pruned
  - VSP, 4-cane parallel
  - Western Sprawl (Smart-Dyson Ballerina on West side)

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Harvest day at Weimar

VSP
Western Sprawl

4-Cane Parallel
Training System Evaluation in Georgia at Trillium Vineyards

Effects of Partial Canopy Division on Yield, Pruning Weight, and Fruit Chemistry of Favorite Winegrapes
5 Year Study

- New Ulm, TX “Favorite” wine grape
- 2 treatments
  - Vertical Shoot Positioned (VSP)
  - Vertically Divided Canopy (DIV)
- 18 vine replicates (3 vine blocks)
- 10 ft. row spacing, 8 ft. vine spacing

Shoot location – evenly spaced
Shoot density – 3-5 shoots per linear foot
Canopy – support 15-20 leaves per shoot
The conversion from VSP

Mid Season Shoot Position

3rd pass
Summer – Pre-Veraison

Harvest Day
Clusters on Downward Shoots

Open eastern side allows for controlled herbicide application

Dormant
Yield (kg/vine)

Brix
pH

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Summary & Conclusions

- Average yield increase over 5 years = 4.5 Tons/Acre
- Crop load and average cane weights may provide useful data for estimating yield potential in following seasons.
- Fruit thinning may be needed some years may improve crop load (ripening?) and prevent decline of vine capacity.
- Canopy division may not provide a yield benefit every season.
- Season appears to be biggest factor affecting yield.

Advice

- Consult with a professional
- Visit vineyards and talk to managers
- Think about the long term function
  - Mechanical harvest
  - Modifications for vigor
  - Economics
- Make sure you understand the system!

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