**Red Flags**

- Subsoil pH is below 4.5 or above 7.5
- Low pH contributes to Al and Mn excesses.
- Consider alternative site.
- High pH can limit micronutrient availability, especially Fe.
- Consider alternate site or lime-tolerant rootstocks.
- Organic matter is above 4.0%
- Can be a result of poor internal drainage.
- Can complicate vine management.
- Consider low-vigor cultivars and/or rootstocks.
Trellis Materials and Types
Trellis Materials

- **Line Post**
  - Main purpose is to support the wire
  - Should be 4 inches in diameter

- **End Post**
  - Support the structure
  - The weight of the structure is transferred through the post
  - Should be 8 inches in diameter
Trellis Materials

- Posts
  - Wooden, treated
  - Steel
  - Other
    - Fiberglass
    - Concrete
    - Well Pipe
    - Irrigation Pipe
Trellis Materials
Trellis Materials

- Wire used to direct the growth of the vine
- Also carries the weight of the vine
- Needs to be high tensile strength, 12.5 gauge
  - Comes in 4000 ft rolls
  - Best have a Spinning Jenny
- Catch wires for VSP can be electric wire or wire of a lesser gauge
Trellis Materials
Trellis Materials

- Strainer
- Springs
- Dead men
- Earth anchors
- Staples
- Wire splicers
- Cross arms
Trellis Materials

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http://agronomy.unl.edu/viticulture
Trellis Materials

- Post Hole Digger
  - Post pounder
  - Auger
- Tractor
- Shovel
- Fence pliers
- Tamper
- Spinning Jenny
- Gloves
Trellis Types

- Importance of a good trellis system
  - Maximize sun or light interception
  - Places vines in a more manageable position
  - Makes it easier to reach the fruit
  - Helps with weed control
  - Facilitates spraying for insect and disease control
Structure of a Grapevine

- Trunk
- Renewal Spurs
- Cordon
- Cane
- Bud
- Sucker
- Trunk
Trellis Types

Types of trellises

- Two and Four Arm Kniffen
- High Wire Renewal System
- Geneva Double Curtain (GDC)
- Vertical Shoot Positioning (VSP)
- Scott Henry
- Smart Dyson
Two and Four Arm Kniffin

Four Arm System

Two Arm System
High Wire Renewal System
Geneva Double Curtain

End section appearance of a GDG vineyard. Shoots can be trimmed but this is generally not needed.

Vine training for the GDG. Note how arms are trained around the central wire to give flexibility. Vines can be trained to one or both sides, but cordon must fill the wire. Prune to downward pointing spurs, from 2 nodes to 6 nodes long.
Vertical Shoot Positioning
Cultivar Selection

- Will it grow in Nebraska?
- Can you sell it?
- Most importantly “What do the Wineries Want?”