

# **Grapevine Canopy Selection**

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# What Is My Magic Number

- **1. NOTHING IS -----There is no perfect canopy for every vineyard.**
- **2. Every Climate, Soil, Variety, Rootstock, Spacing, Management, and more will determine “your” vine vigor & production.**
- **3. We must all “learn” the best canopy match for my place----It is never “what I want”; it is what my grapevine wants at my site.**
- **4. How many buds does your vine want?**

# Grape Pruning of today began in France at the Clos du Vougeot in Burgundy



**There are only two types of pruning;  
A 6 bud cane      vs      A 2 bud spur**



**Pruning is only on..... 1 year old growth.**

# Joe Mae Zinfandel Vineyard at Lindale 1972



**High Wire Bilateral Cordon ??????????**

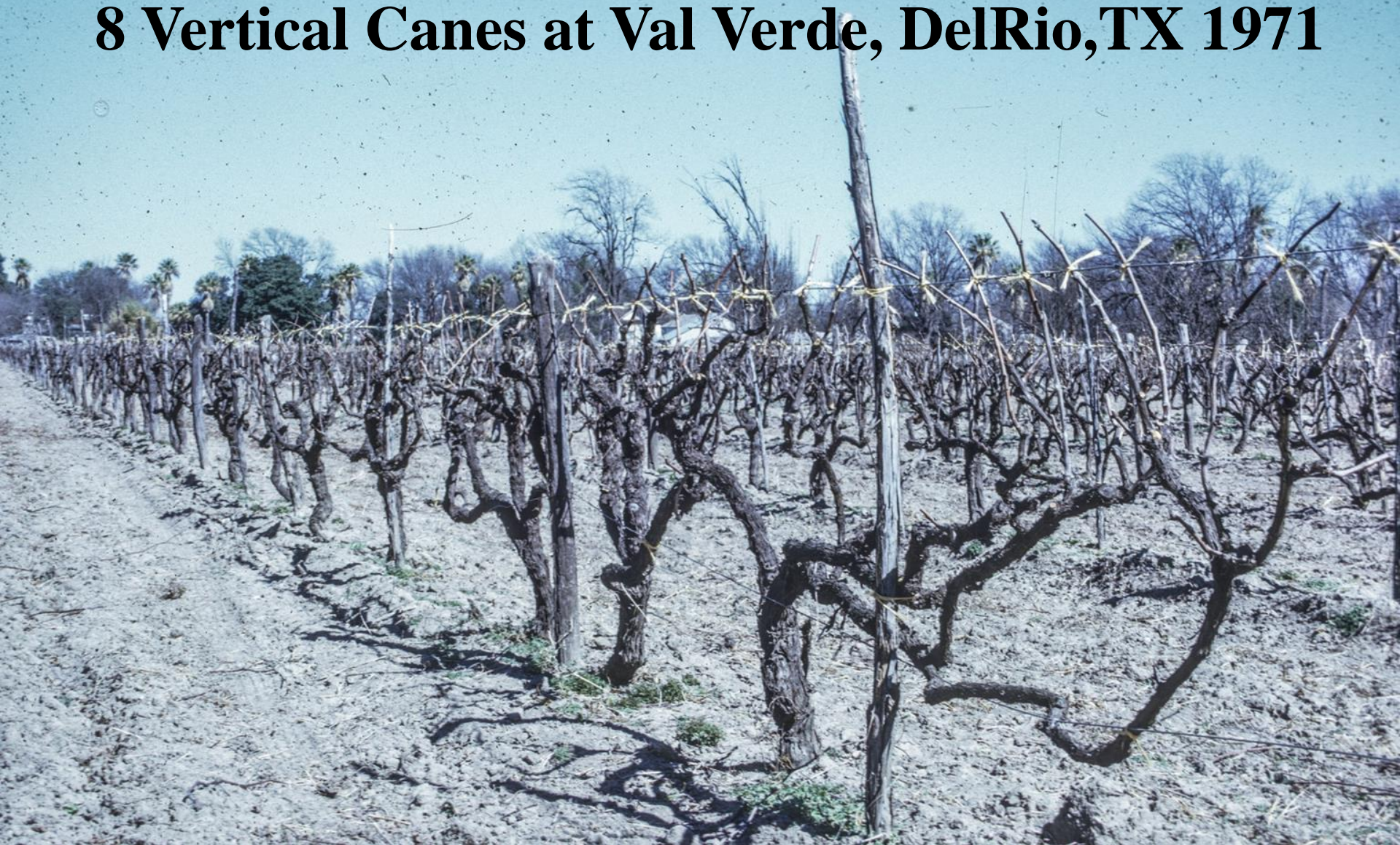


2 Bud Spur vs 6 Bud Cane on 2 wires at 66 and 42 inches.

Venus Tablegrapes at Sunset, TX 1975



# 8 Vertical Canes at Val Verde, DelRio, TX 1971



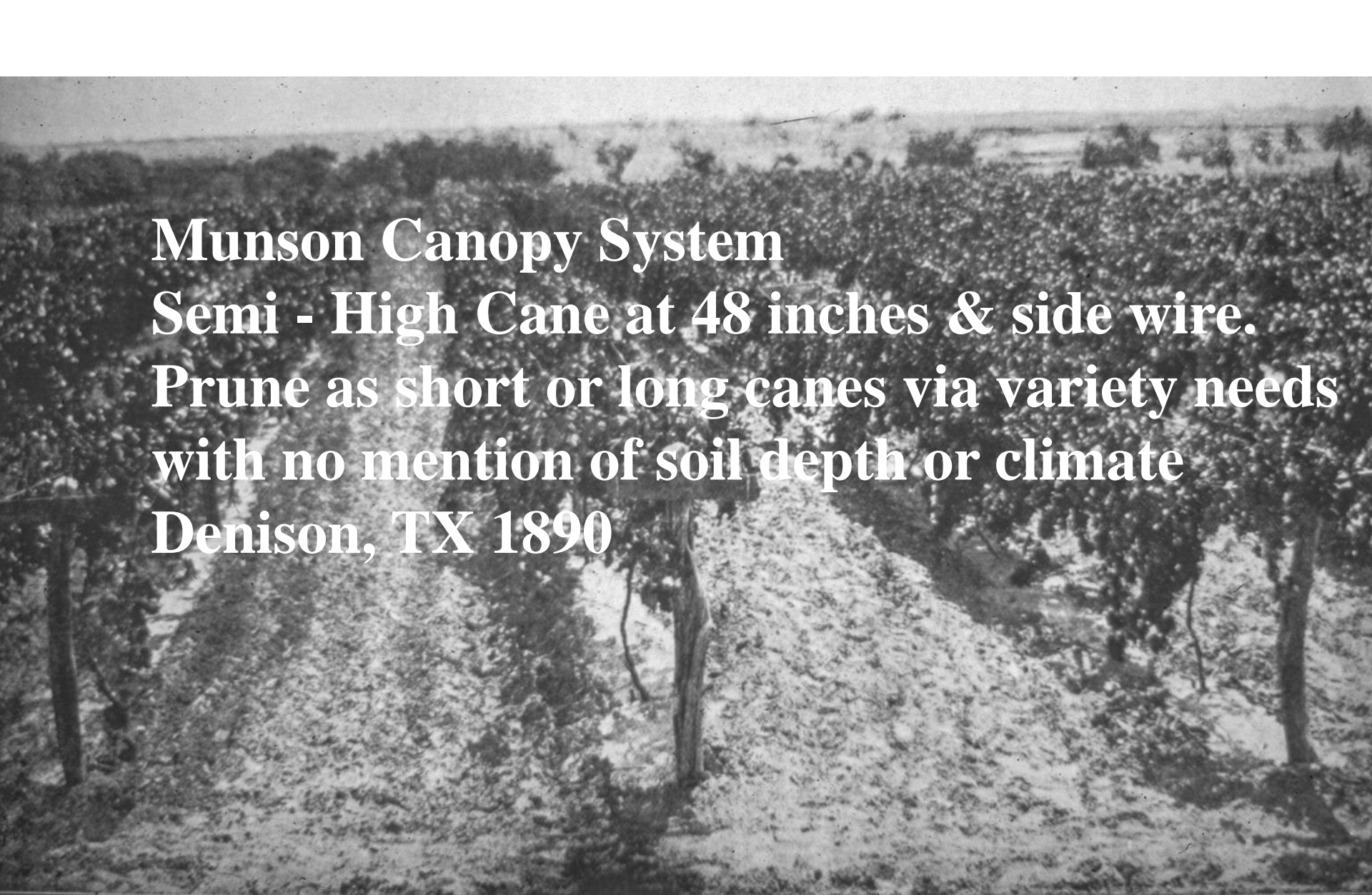


**2<sup>nd</sup> Leaf Blanc duBois High Cane  
at Palestine, TX 1990**





**Ancient No Trellis On the ground  
Spur pruned vines at “No Rain  
on the Plain in Spain..... Today**



**Munson Canopy System**  
**Semi - High Cane at 48 inches & side wire.**  
**Prune as short or long canes via variety needs**  
**with no mention of soil depth or climate**  
**Denison, TX 1890**

MUNSON GRAPES ON MUNSON TRELLIS, SET 18 MONTHS.



**Overhead Spur Flame Tokay Israel 1970**



**Bobby Smith Springtown 1977 Perfect Shoot**



**CheninBlanc Jane Terrell 1984 Perfect Shoot**

## **The Perfect Shoot:**



**3 to 5 foot long at harvest,  
15 to 22 mature leaves at harvest,  
1/4 to 1/2 inches in diameter, and  
.7 to 1 pound of pruning wood per 1 foot of row.**



**Dr Robert Lautel shows The Perfect Shoot  
On Chardonnay with Cool Climate No Soil  
With a 6 Bud Cane on 4,800 vines per acre  
in Burgundy.**





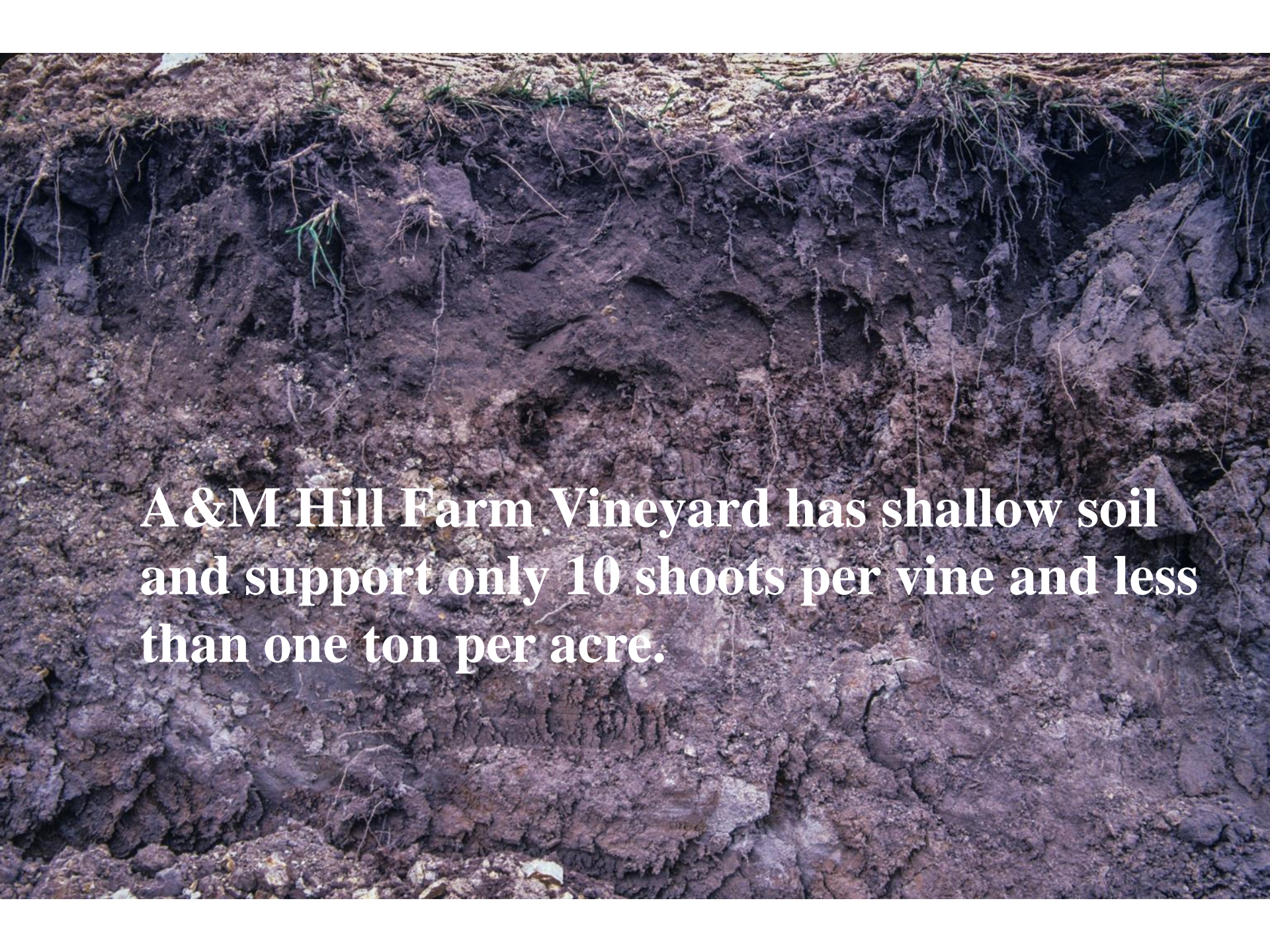
**The Perfect Shoot on Chardonnay in Burgundy  
Spaced 3x3 feet and shoot grow only 36 " tall.**



**Cabernet Sauvignon in Bordeaux Moderate  
Climate with 2 canes 6 buds each yields 4 tons  
per acre with maximum quality.**



**Soil Depth determines production potential and the canopy which best fits vine and root growth potential.**



**A&M Hill Farm Vineyard has shallow soil and support only 10 shoots per vine and less than one ton per acre.**



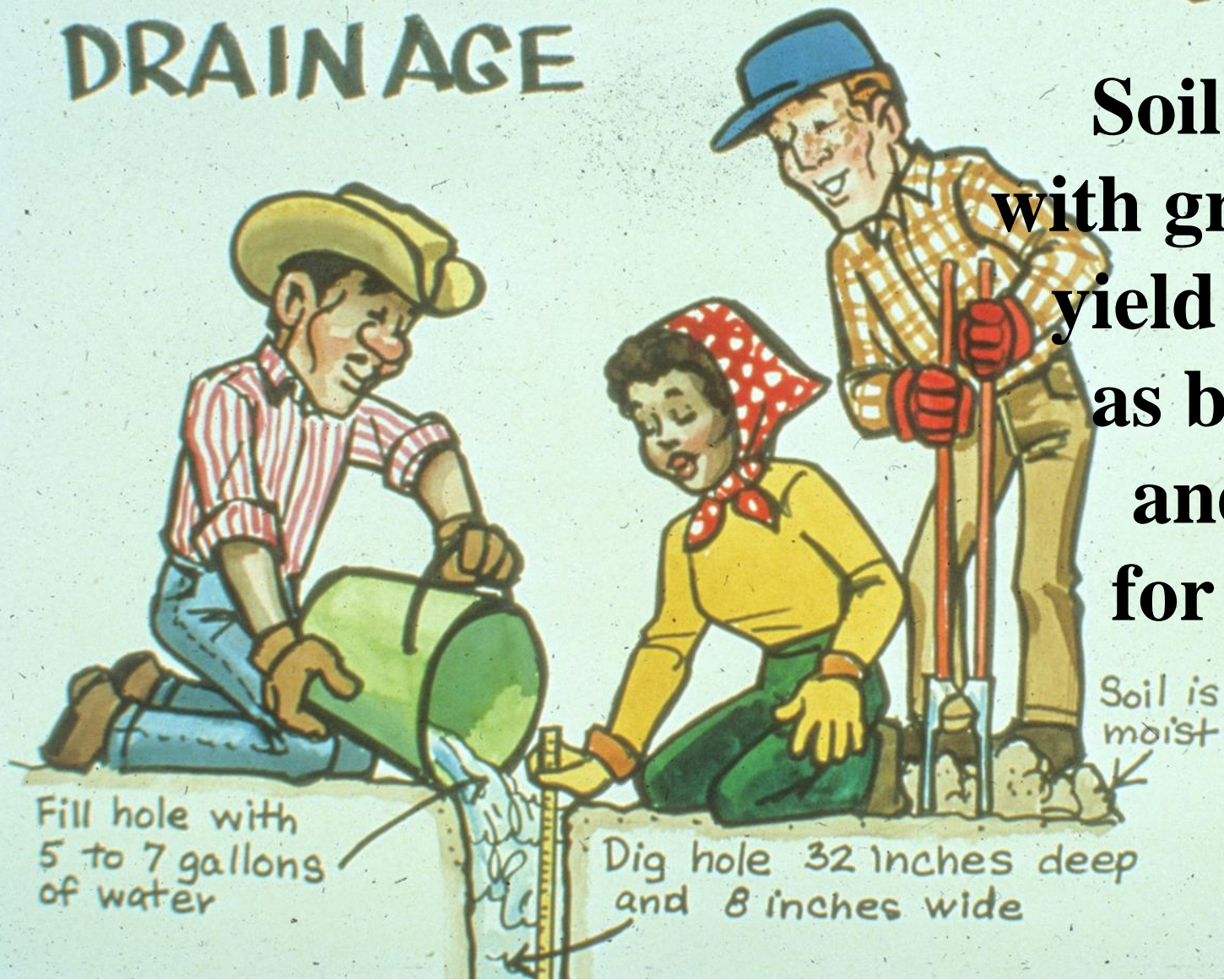
**A&M Hill Farm Vineyard with shallow soil has produced high quality ripe fruit on 5 foot shoots with only 10 shoots per vine without overcropping for 11 years.**

**Jane Terrell Vineyard in Brazos Valley warm climate with 10 foot of top soil produced high vigor vines and 6+ tons per acre.**

**Here bilateral cordon does not have sufficient buds and shoots for max yield and quality.**

# CHECKING SOIL WATER DRAINAGE

**Soil Depth  
with growth and  
yield potential  
as bud count  
and canopy  
for the site.**



Fill hole with  
5 to 7 gallons  
of water

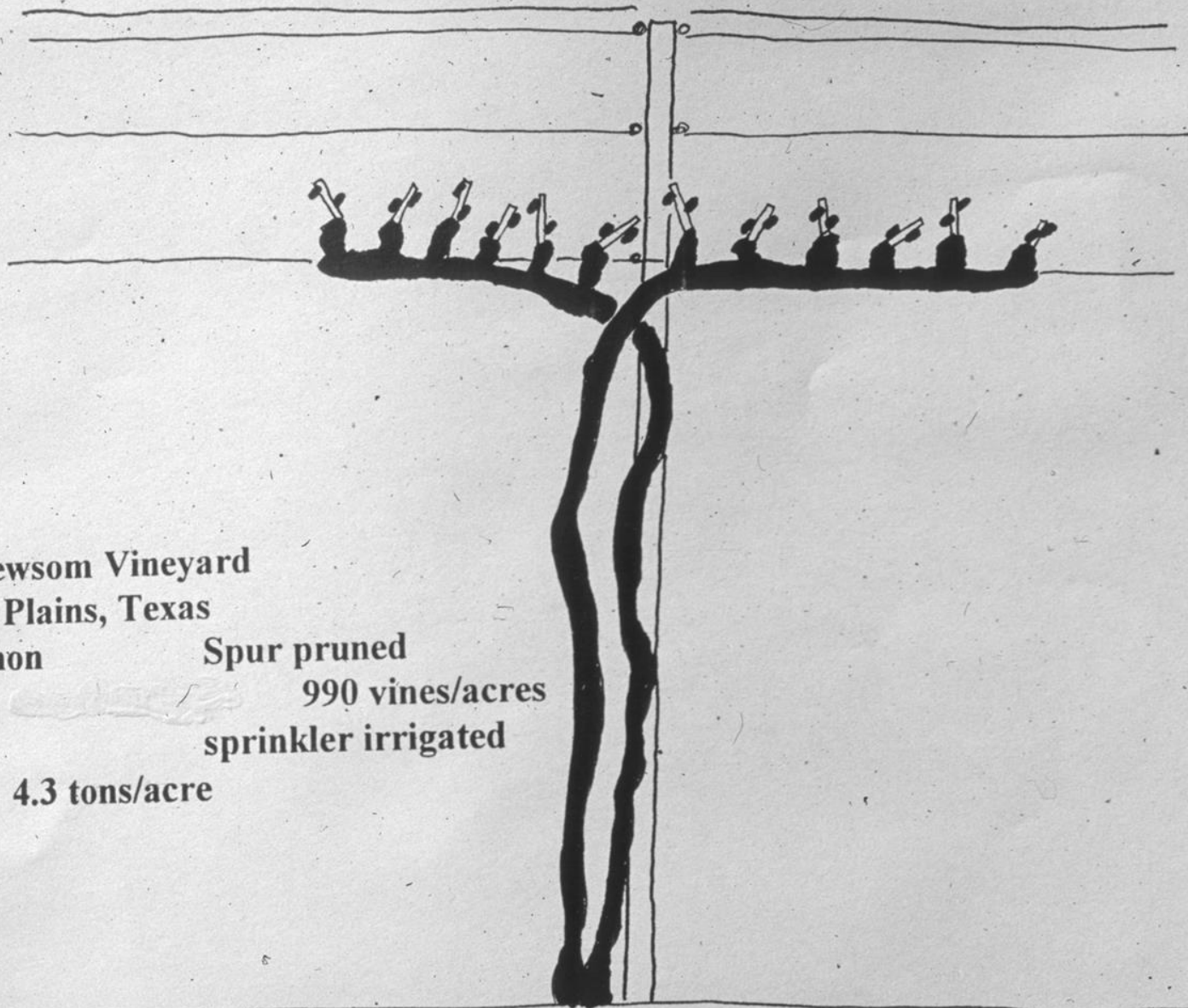
Dig hole 32 inches deep  
and 8 inches wide

Soil is  
moist



**A&M Hill Farm Vineyard has shallow soil; thus only 10 shoots / 20 clusters per vine with vertical shoot positioning and non-count shoot thinning hand labor.**





**Newsom Vineyard  
Plains, Texas**

**Cabernet Sauvignon  
11 x 4 spacing  
excellent soil**

**4.3 tons/acre**

**Spur pruned  
990 vines/aces  
sprinkler irrigated**



**Gene Estes at Burleson, TX Shiraz bilateral cordon at 36 inches with Semi-VSP spaced in row at 5' and two shoots per spur and 4 tons per acre with high quality.**

A photograph of Gene Estes, an older man with white hair, wearing a black short-sleeved shirt and khaki pants, standing in a vineyard. He is holding a vertical black post of the trellis system. The vines are bare, with some small green leaves starting to appear. The trellis consists of black posts and horizontal wires. The ground is dry and brown with some sparse green grass. The background shows more rows of vines and a clear blue sky.

**Gene Estes at Burleson, TX Shiraz High Cordon  
At 66 inches and double trunks with short side  
wires with 6 to 8 tons per acre and high quality.**



**Bilateral Cordon at UT Bakersfield, TX 1985  
Single Trunk, 7 two bud spurs left & 7 spurs  
right. Two horizontal catch wires at 66 inches  
and yield of 6-8 tons per acre.**

A photograph of a vineyard during a pruning season. In the foreground, a large, gnarled, and leafless vine trunk is prominent. In the background, several workers are seen tending to rows of grapevines. The vines are supported by a trellis system with wooden posts and wires. The ground is covered in green grass. The sky is bright blue with scattered white clouds.

# What is Your “Magic Number”

**How many spurs and buds can your warm climate, variety, soil depth, and management support for healthy vines, quality fruit, and long vine life?**

A photograph of a vineyard during pruning season. In the foreground, a person wearing a grey hoodie with 'ATM' on it and blue jeans is using a hand saw to cut a vine. The vineyard is organized into rows with green metal posts and horizontal wires. Other people are visible in the background, also working on the vines. The ground is dry and grassy.

# Three Pruning Propositions Exist In Every Vineyard:

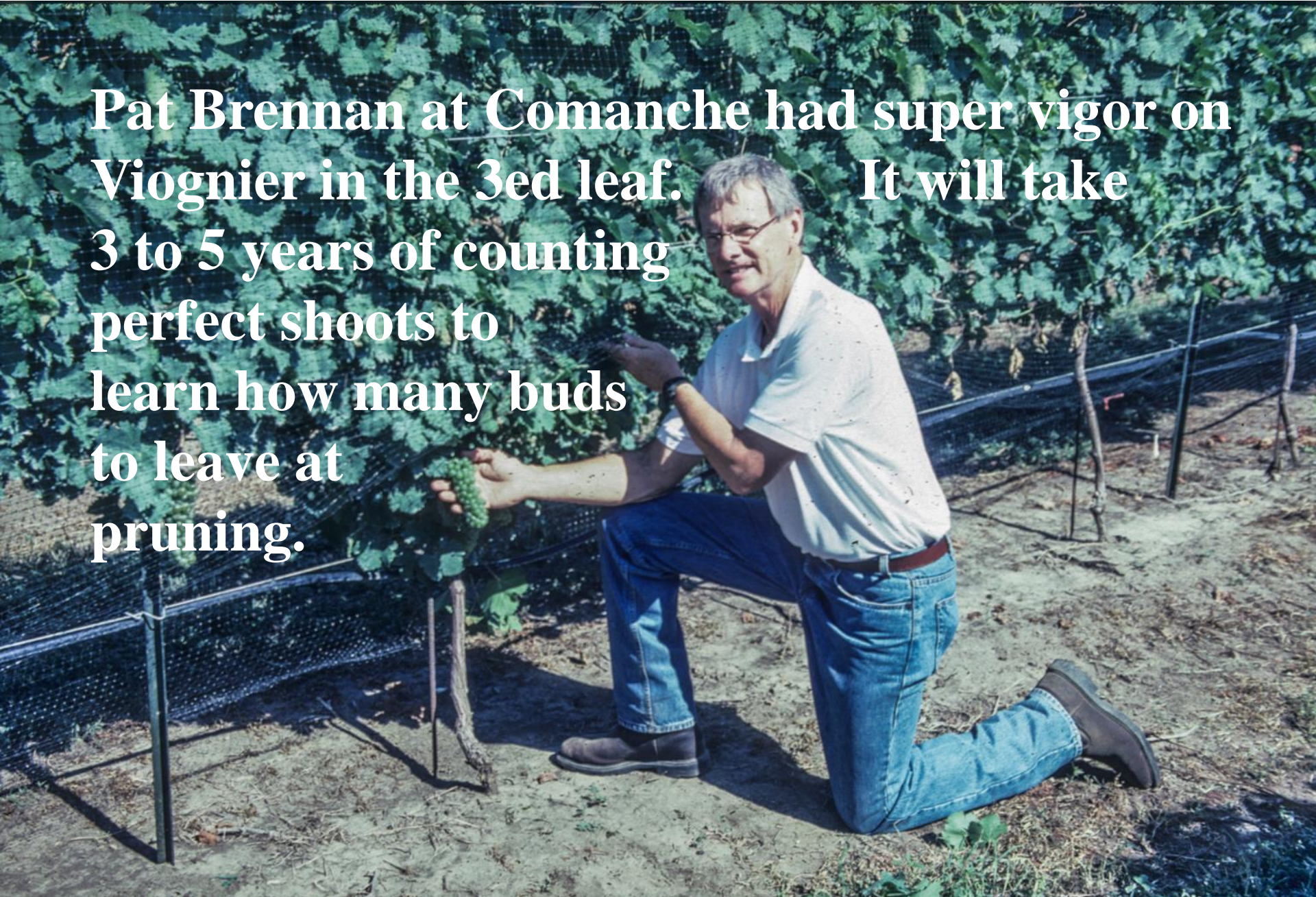
- #1. Vigorous Vines need more buds at pruning.
- #2. Overcropped Vines need less buds.
- #3. Perfect shoot vines need the same number of buds on the vine after pruning.



**This vine had 16 perfect shoots;  
YES, we will allow only 16 buds to produce  
shoots with two clusters per shoot.**

**In Jan or Feb we will count the number of  
perfect shoots on 3 vines on 5 rows to determine  
how many buds to leave at pruning.**

**Pat Brennan at Comanche had super vigor on Viognier in the 3ed leaf. It will take 3 to 5 years of counting perfect shoots to learn how many buds to leave at pruning.**





**If the vine needs more buds; a new canopy will be needed. A double vertical canopy could be used to grow and bear more.**

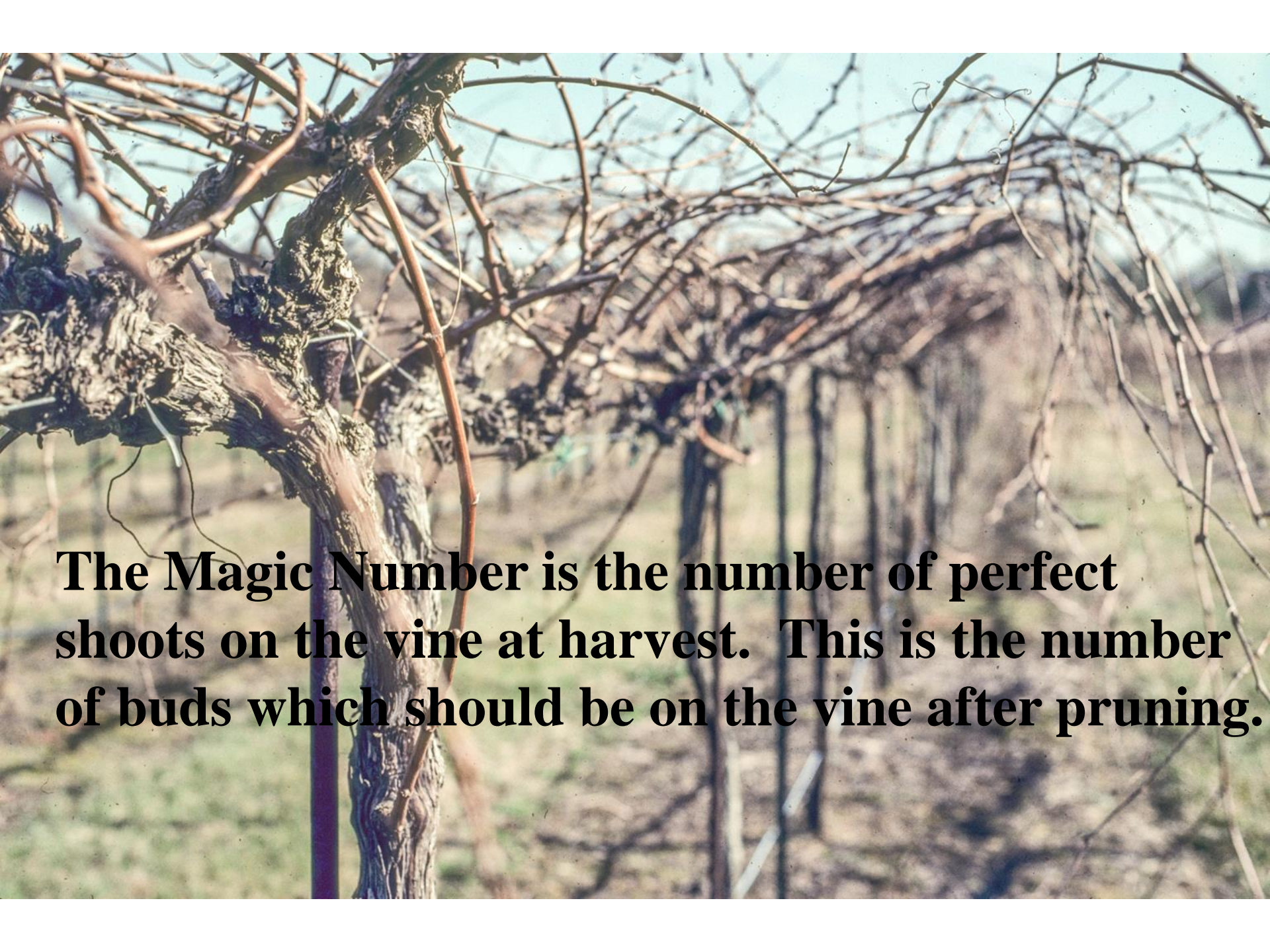


**A Jerry Watson high cordon with side positioning could also increase the bud and shoot number.**



**Blanc duBois does great with the Watson Canopy.**





**The Magic Number is the number of perfect shoots on the vine at harvest. This is the number of buds which should be on the vine after pruning.**



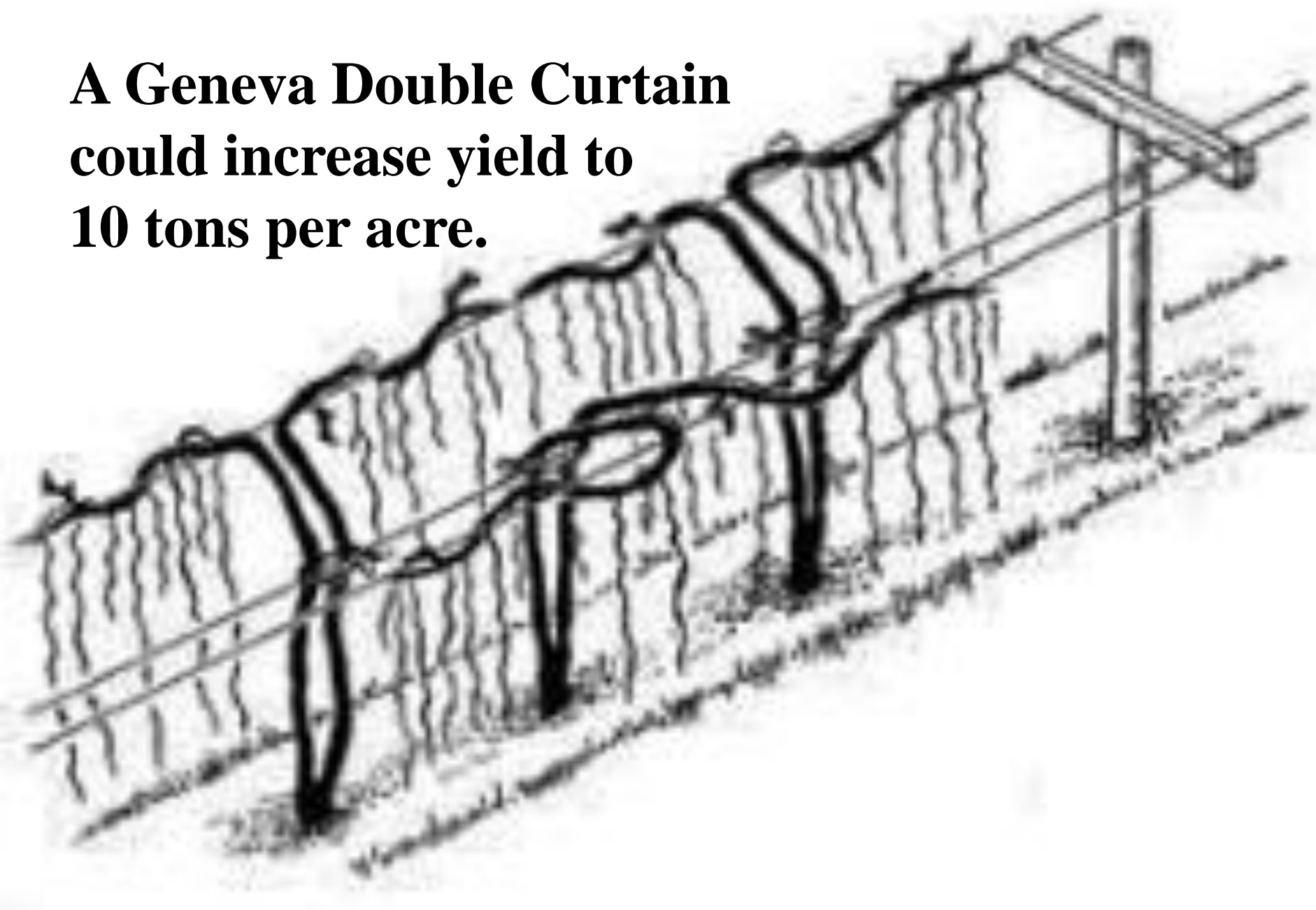
**This vine was pruned to 16 spurs with 32 buds.**

**Each Blanc duBois vine will bear 8 pounds  
or 2.5 tons per acre.**

**A quadra-lateral high cordon would bear 2x  
or 5 tons per acre.**



**A Geneva Double Curtain  
could increase yield to  
10 tons per acre.**



Varieties with very large clusters like Zinfandel can be head pruned as a Goblet.







**Tempranillo pruned as a Goblet in Spain with perfect shoots even the with 12 very large clusters on 12 bearings shoots.**

**Goblet Zinfandel in Dry Creek AVA of Sonoma.  
These 50 + year old vines will carry only 8 to 10  
shoots and clusters.**





**Too many buds result in overcropping, poor ripening, and eventually vine death.**

**This is Zinfandel in the Texas Hill Country.**

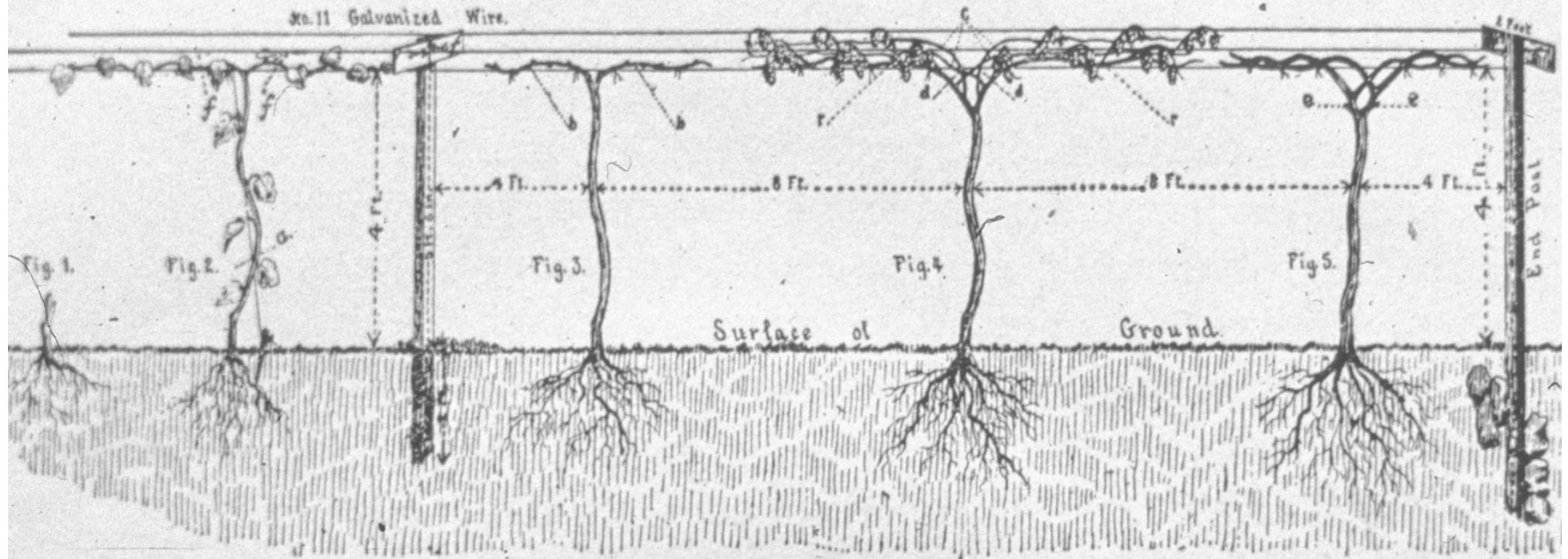


**If too few buds are left on the vine;  
excess vigor with no fruit results.**

**Oregon though a cool climate can have major vine vigor issues, especially when pruned with too few buds.**



# Pruning and Training the Vines



The Munson Three-Wire Canopy Trellis and Renewal System Training

Drawn and Described by the Inventor



**Minimum prune in Australia  
results in a jungle of growth  
with very small 2 or 3 berry  
clusters.**