

Pruning is the defining characteristic of quality

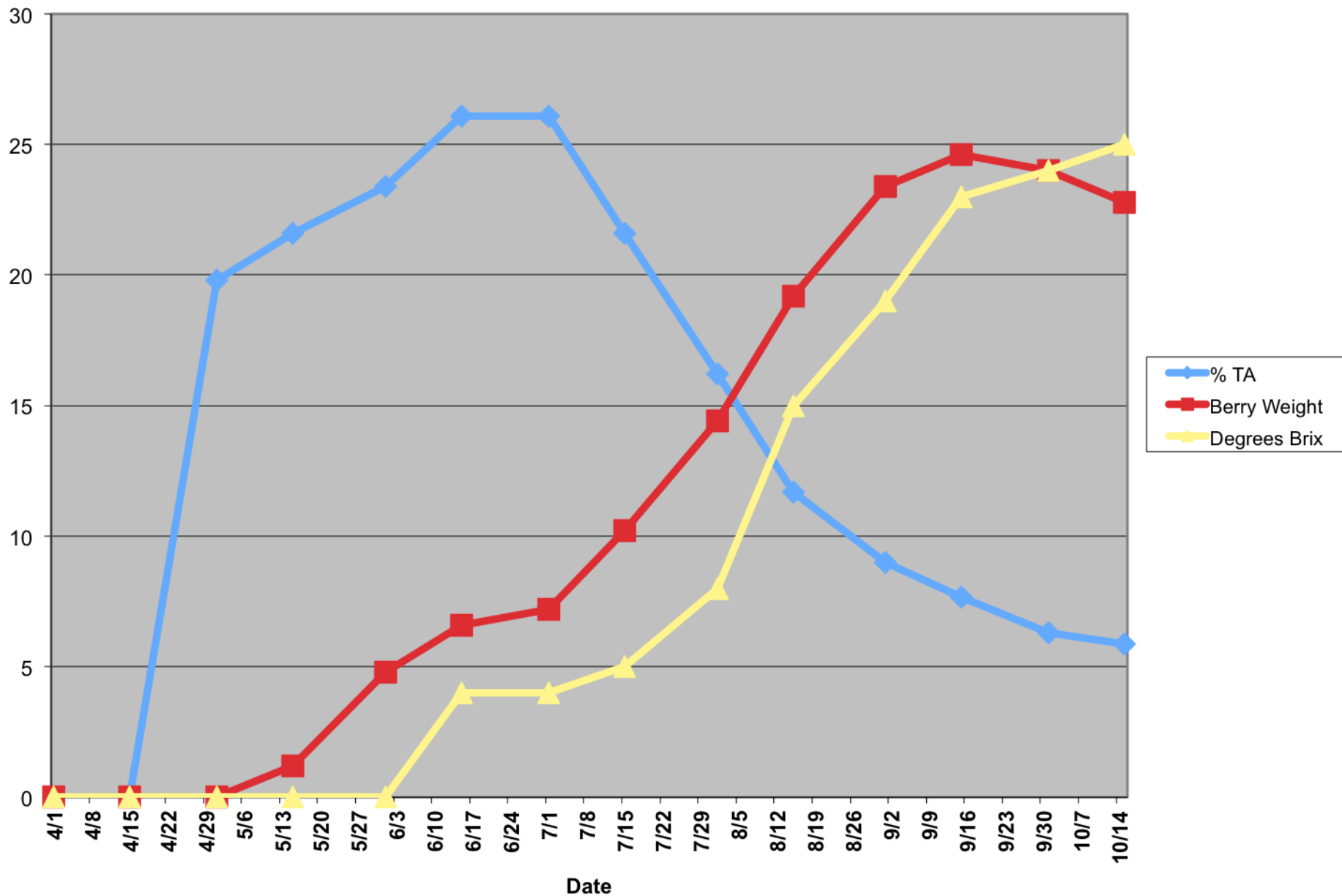




PRUNING for Quality

- Balance starts in the vineyard
- Grapes like it hot
- Acid Sugar balance

Grape Maturity





PRUNING for Quality

- Pruning is performed in the winter dormant period
- It returns the vine to a favorable annual starting point by removing most of the previous year growth
- Properly done, it helps to insure a good and healthy crop in the coming and following years



PRUNING for Quality

- Balance starts in the vineyard
- Air flow inhibits pathogens
- Sunlight
 - Increases phenols
 - First Increases then Decreases Oxidative Reduction Potential (Antioxidants)
 - Reduces acids



VINE GROWTH

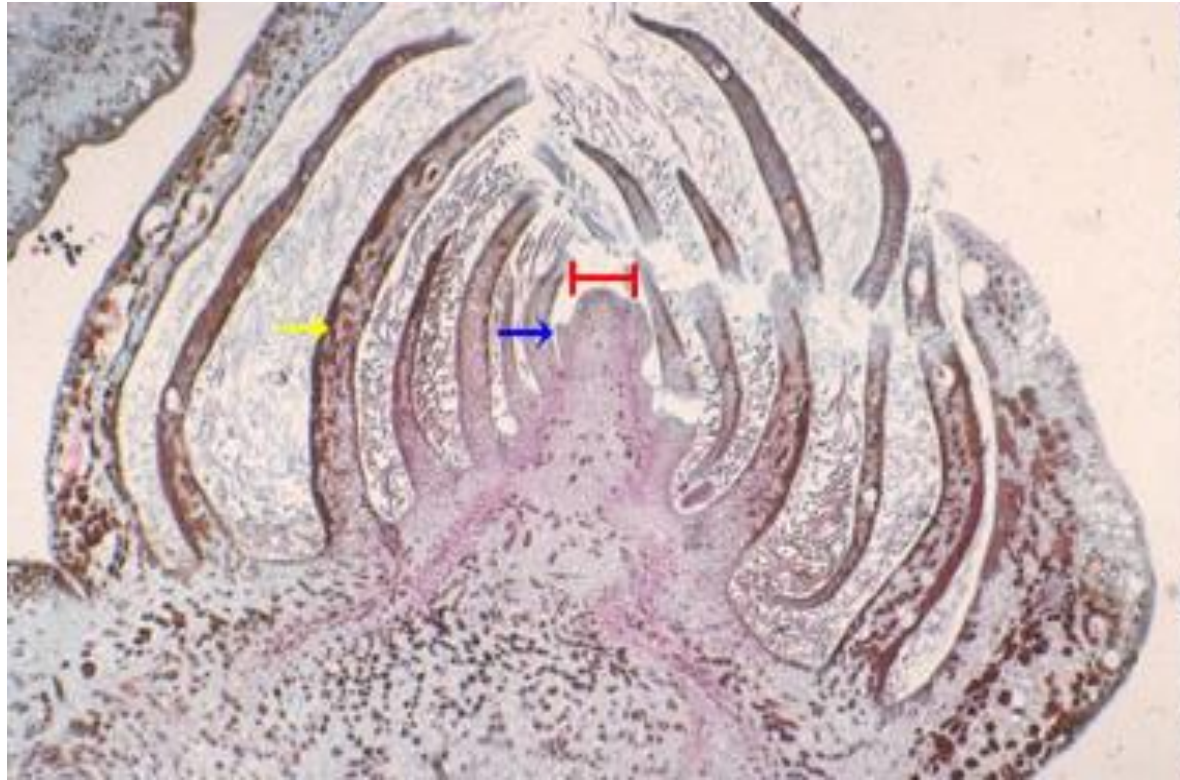
- Growth habit is indeterminate
 - Limited only by environmental factors
- Primary Growth = growth in length, height
 - Plants display apical dominance





PRIMARY GROWTH

- Arises in apical meristem of shoots and roots
- Area of rapid cell division
- Area of cell elongation
- Areas of tissue differentiation (specialization)



This image of a dormant bud shows the apical meristem (red bracket), very recently developed leaf primordium (blue arrow), and several older leaf primordia and bud scales (yellow arrow).



PRUNING for Quality

- Balance starts in the vineyard
- Root & fertility to canopy to fruit ratio
 - Production vineyards produce maximum yield
 - 8 – 16 tons/acre
 - Craft vineyards cap production at maximum photochemical density and balance
 - 2.5 – 5 tons/acre



PRUNING for Quality

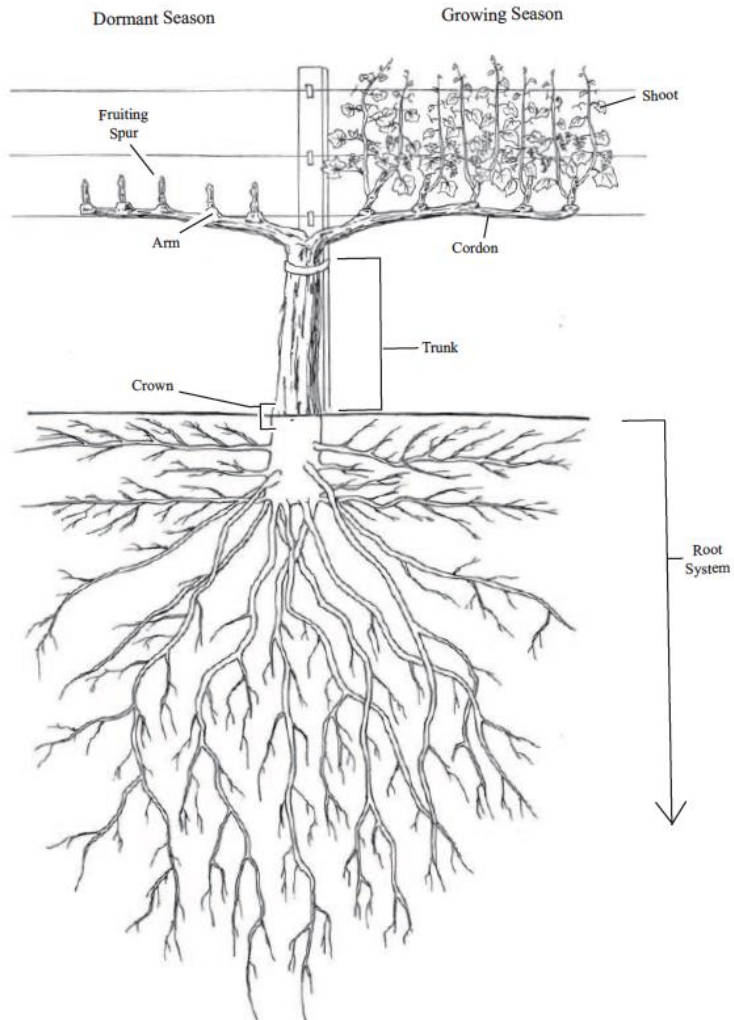


Figure 2. Grapevine structures and features: self-rooted vine. Drawing by Scott Snyder.



MAYBE ADEQUATE
EXPOSURE (60%)



EXCESSIVE EXPOSURE



**SHOOT THINNED NICELY
FRUIT OVER EXPOSED?**

THEY' RE IN
THERE
SOMEWHERE!



A narrow dirt path winds through a dense vineyard. The path is flanked by rows of grapevines with large, vibrant green leaves. The perspective is from within the vines, looking down the path towards a distant, slightly hazy horizon. The sky is a pale, overcast grey. The overall atmosphere is lush and verdant.

CALL Pedro!



NICELY DONE!



THIS TOO!



PRUNING for Quality

- Managing the Macroclimate
- Managing the Mesoclimate
- **Managing the Microclimate**





PRUNING for Quality

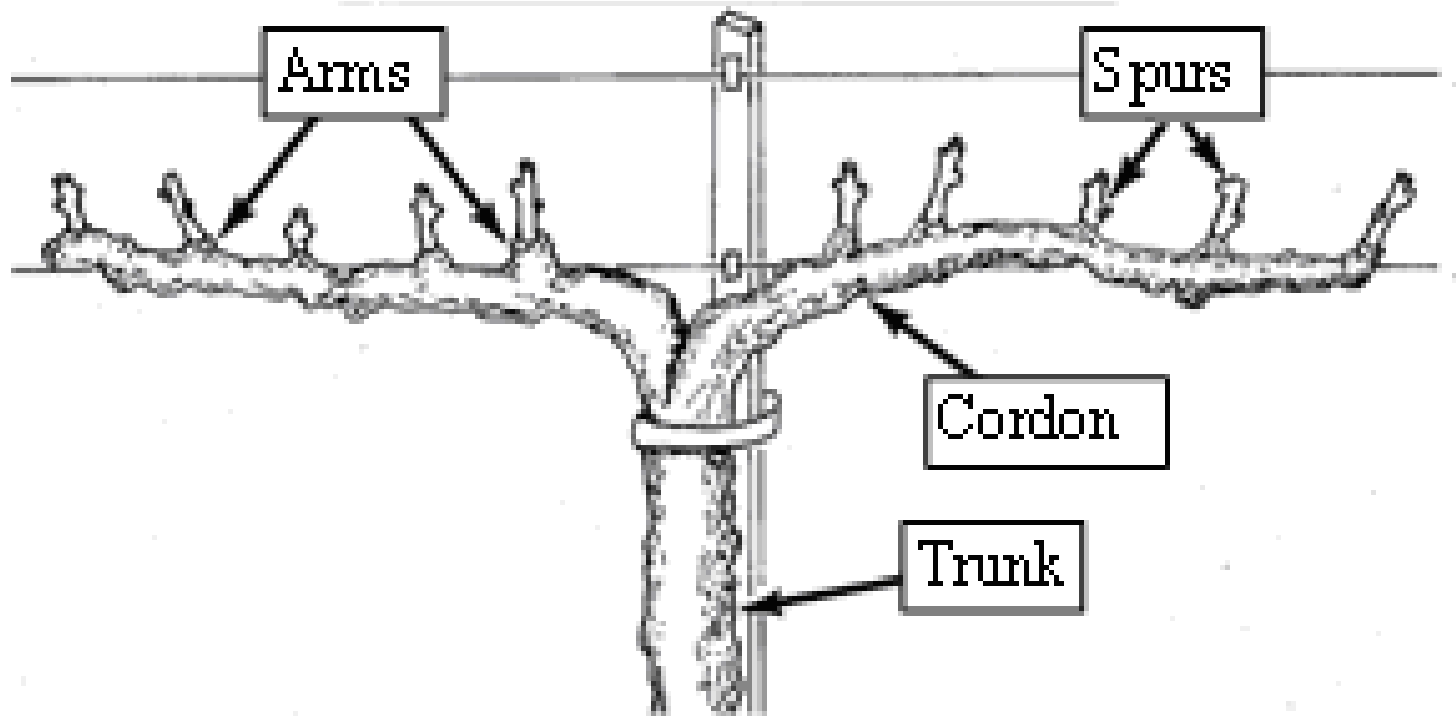




SPUR PRUNED VINE
Bi-Lateral Cordon



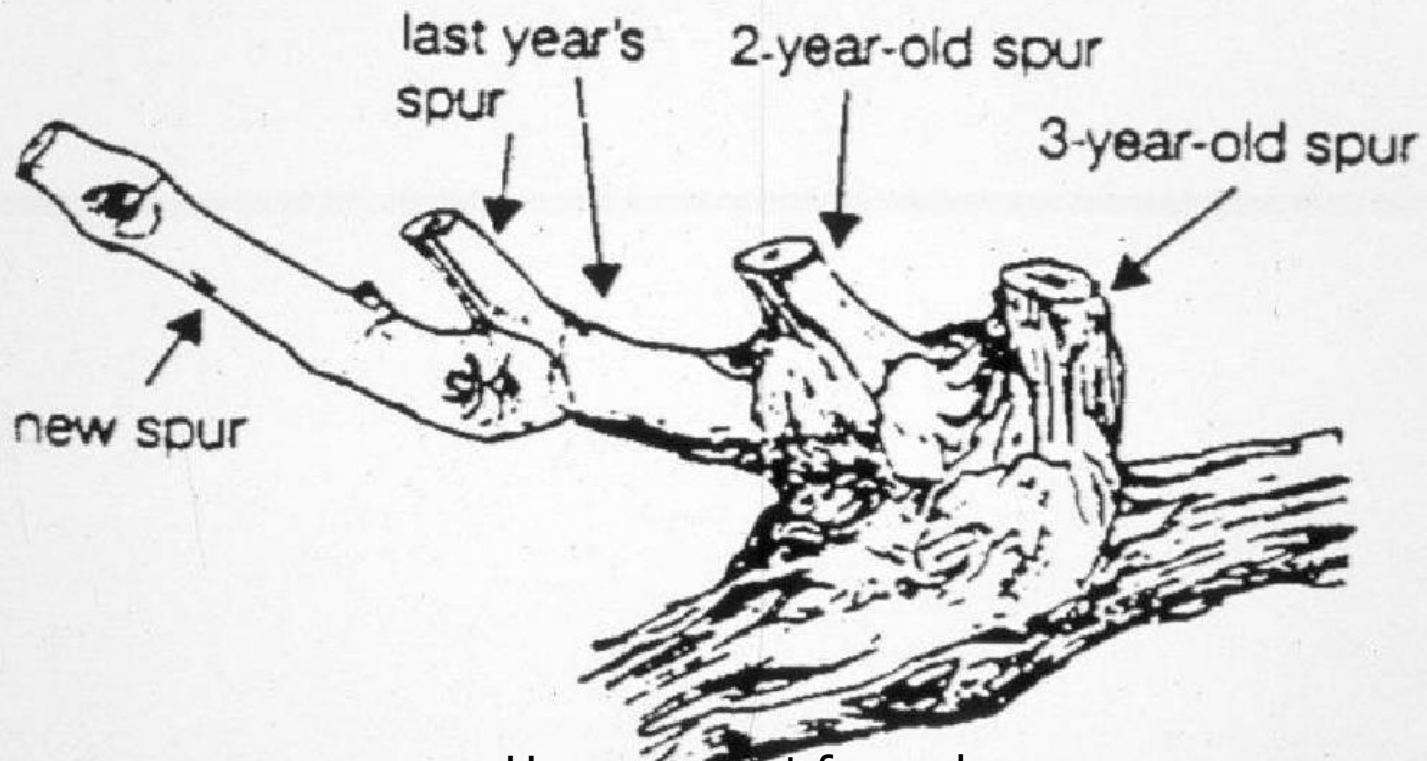
Bilateral Cordon, Spur Pruning





A TWO BUD SPUR

Each bud should grow one shoot with two grape bunches – four bunches for each two bud spur (basal bud is probably not fruit bearing)



How arms get formed
(and get out of hand on cordon trained vines)



LONG ARMS
(See what I mean)



SPUR PRUNING – TOO CROWDED
About 5"-6" inches apart works best



**SPUR PRUNING – TOO
WIDELY SPACED (a lot
of wasted space with no
fruit)**

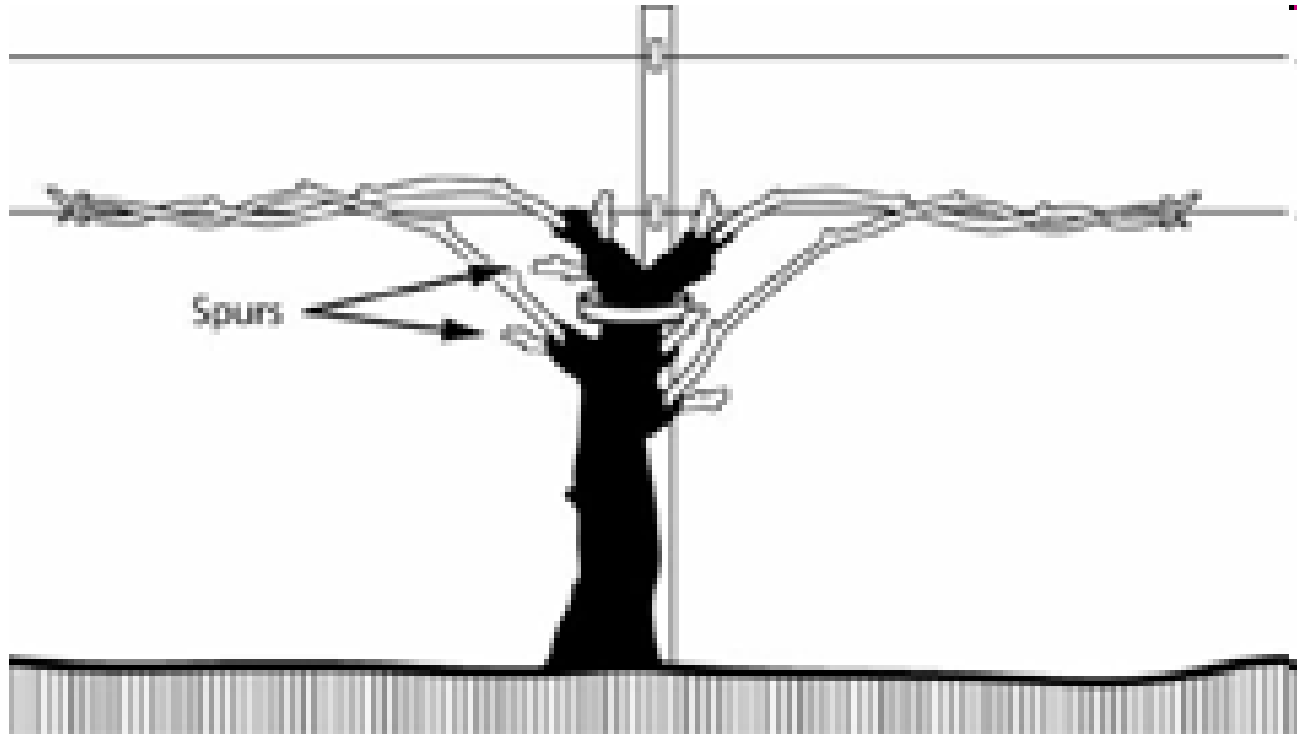


Water Sprout





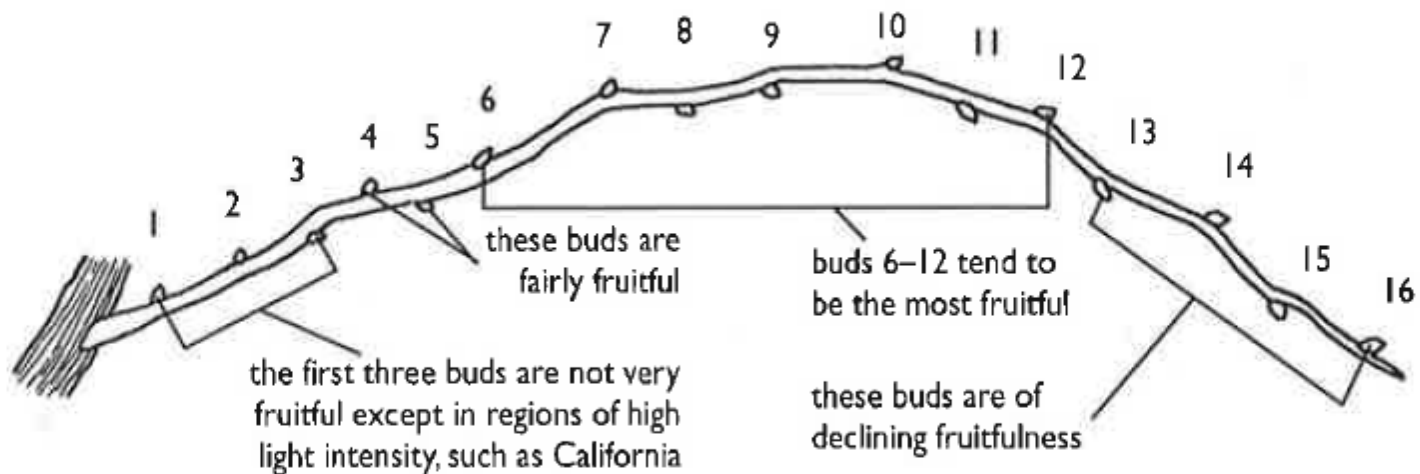
PRE-PRUNED – prior to cutting to spur length



HEAD TRAINED, CANE PRUNED
Note replacement spurs



FRUITFULNESS OF BUDS ALONG A CANE (TYPICAL FRENCH-AMERICAN HYBRID)



Fruitfulness of buds varies with variety. Examine your vines when they are mature to note which buds are producing flower clusters.



**Cane Pruned Vine
Before Pruning**



Remove Second Year Canes



Retained Four Canes



Four Canes, Three Spurs





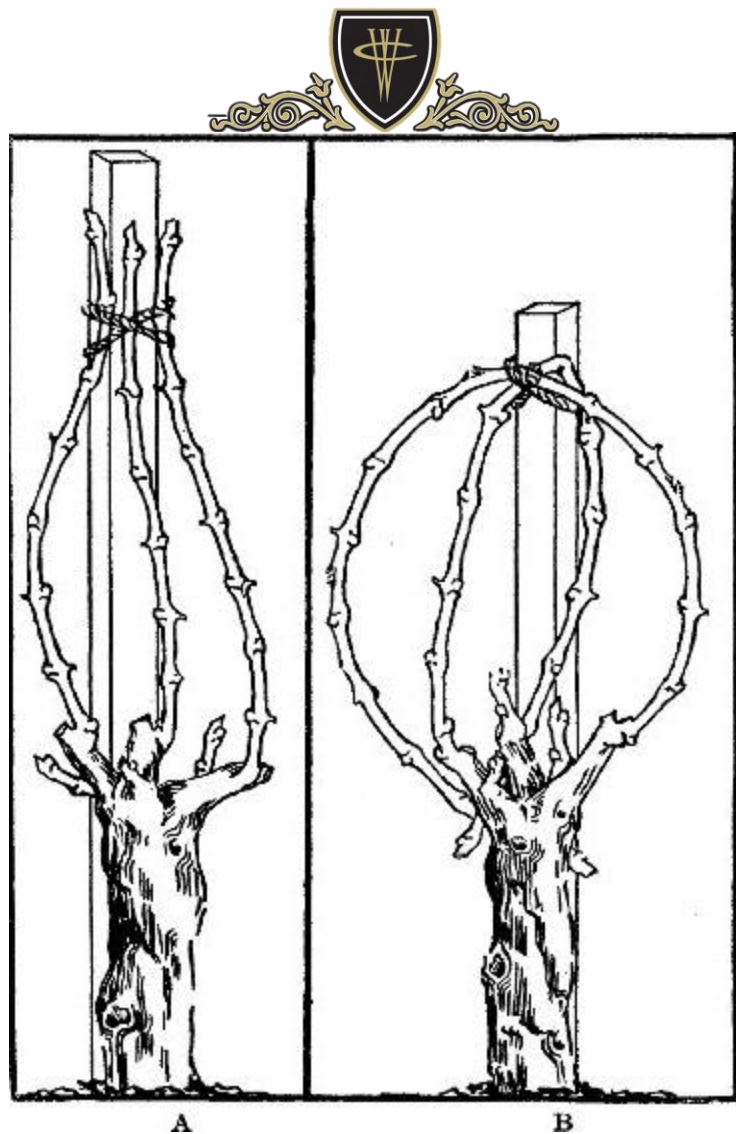
HEAD TRAINED, SPUR PRUNED



DORMANT HEAD TRAINED MOURVEDRE

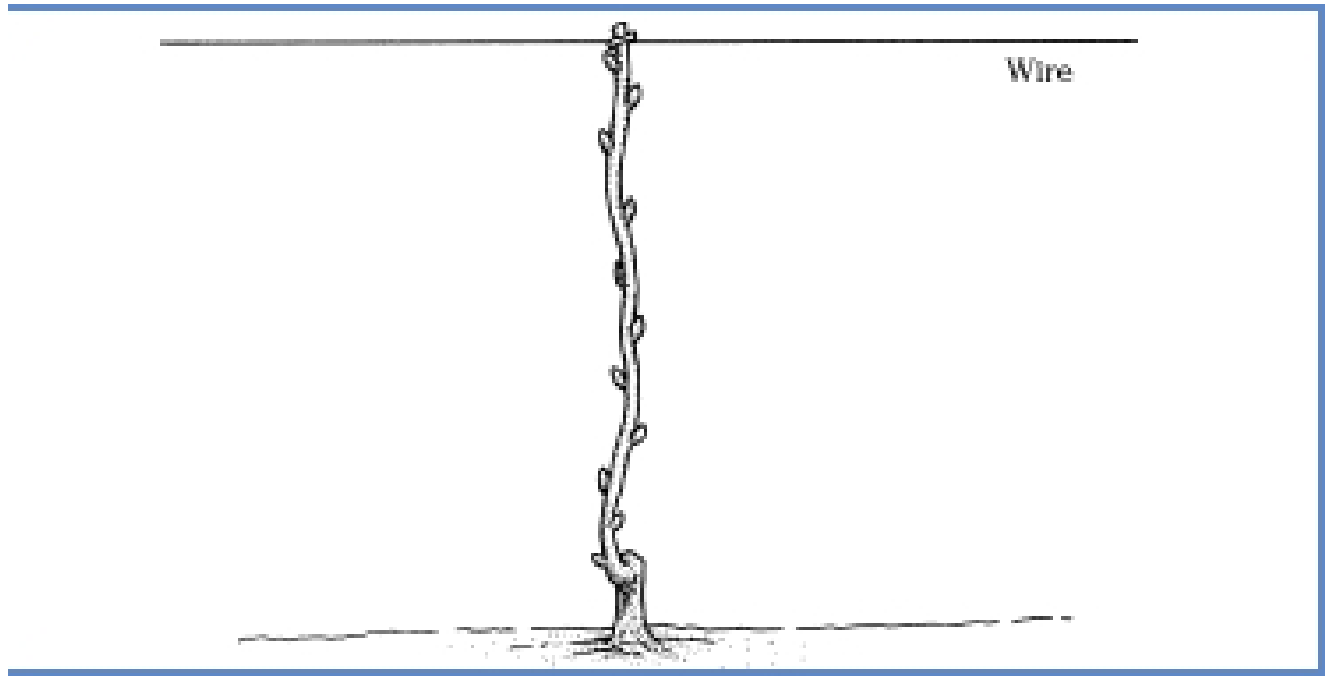


DORMANT HEAD TRAINED SYRAH

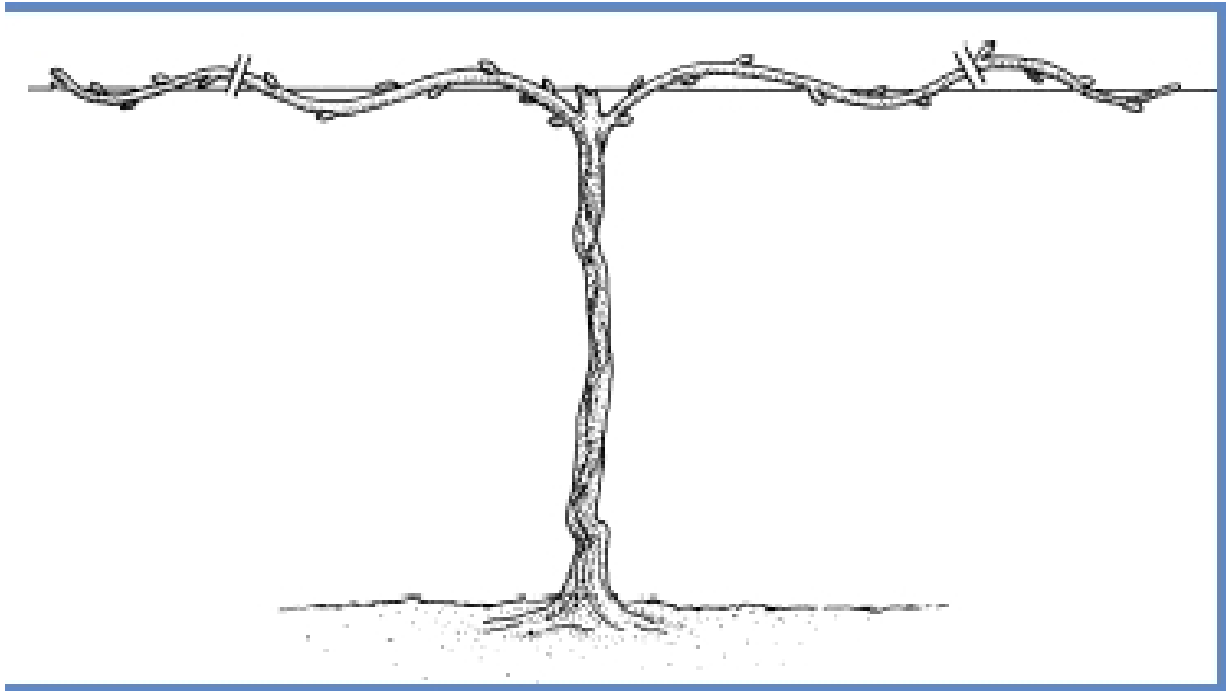


A B

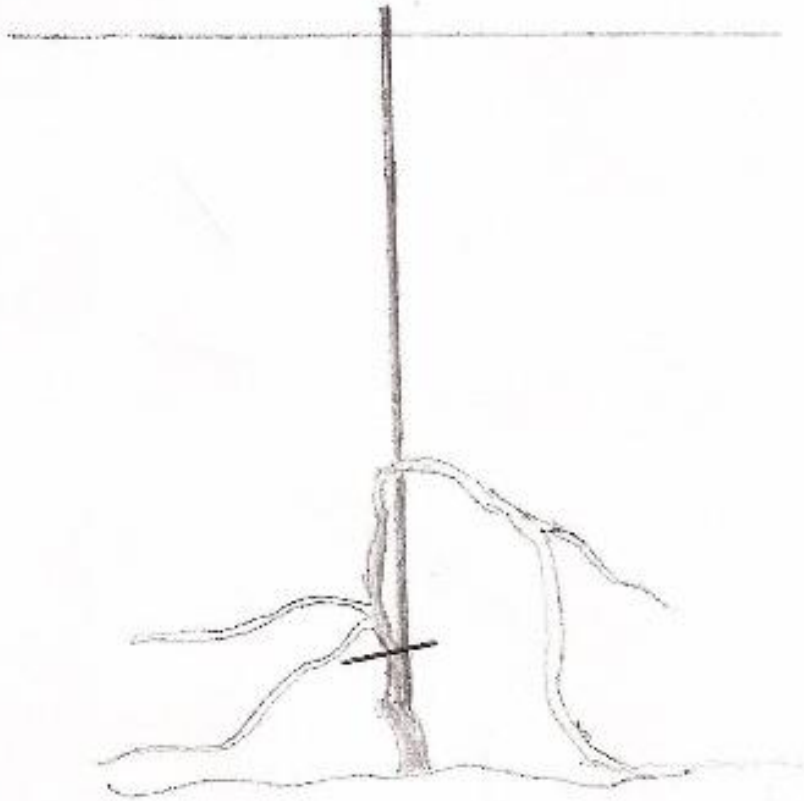
GOBLET
European System
Cane and spur pruning



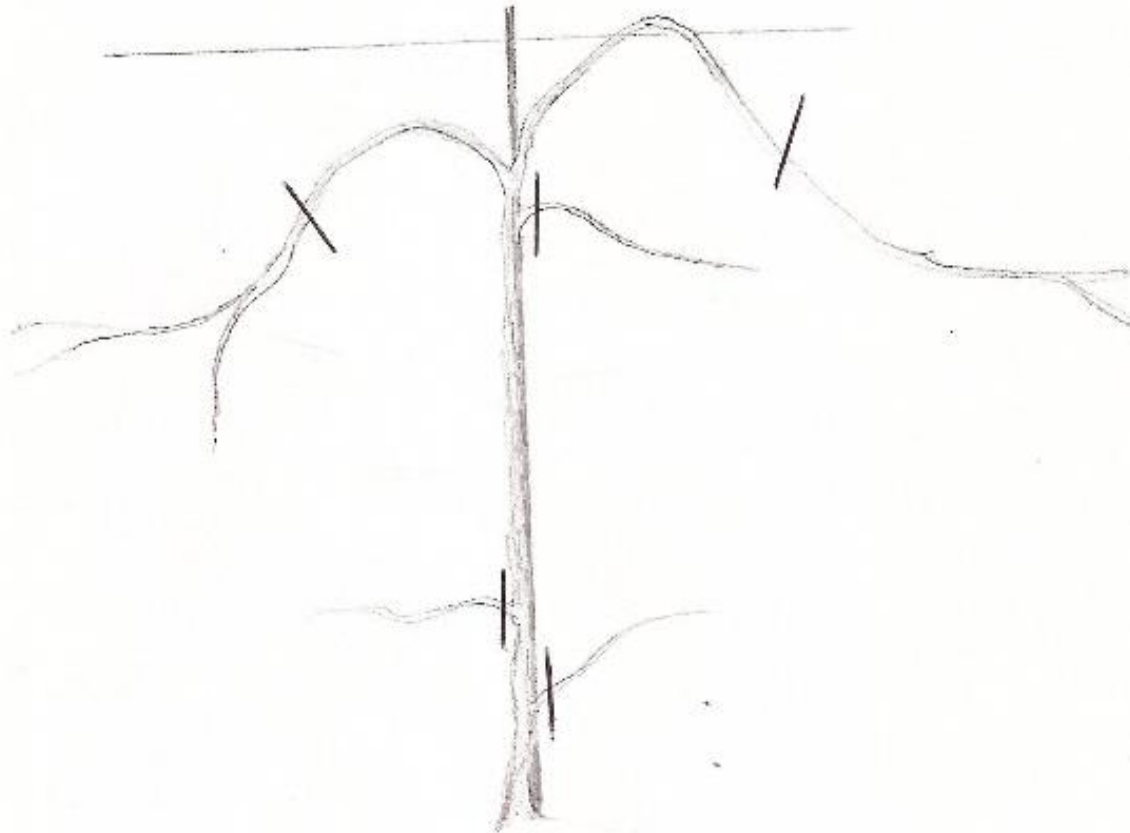
PRUNING TRAINS THE YOUNG VINE



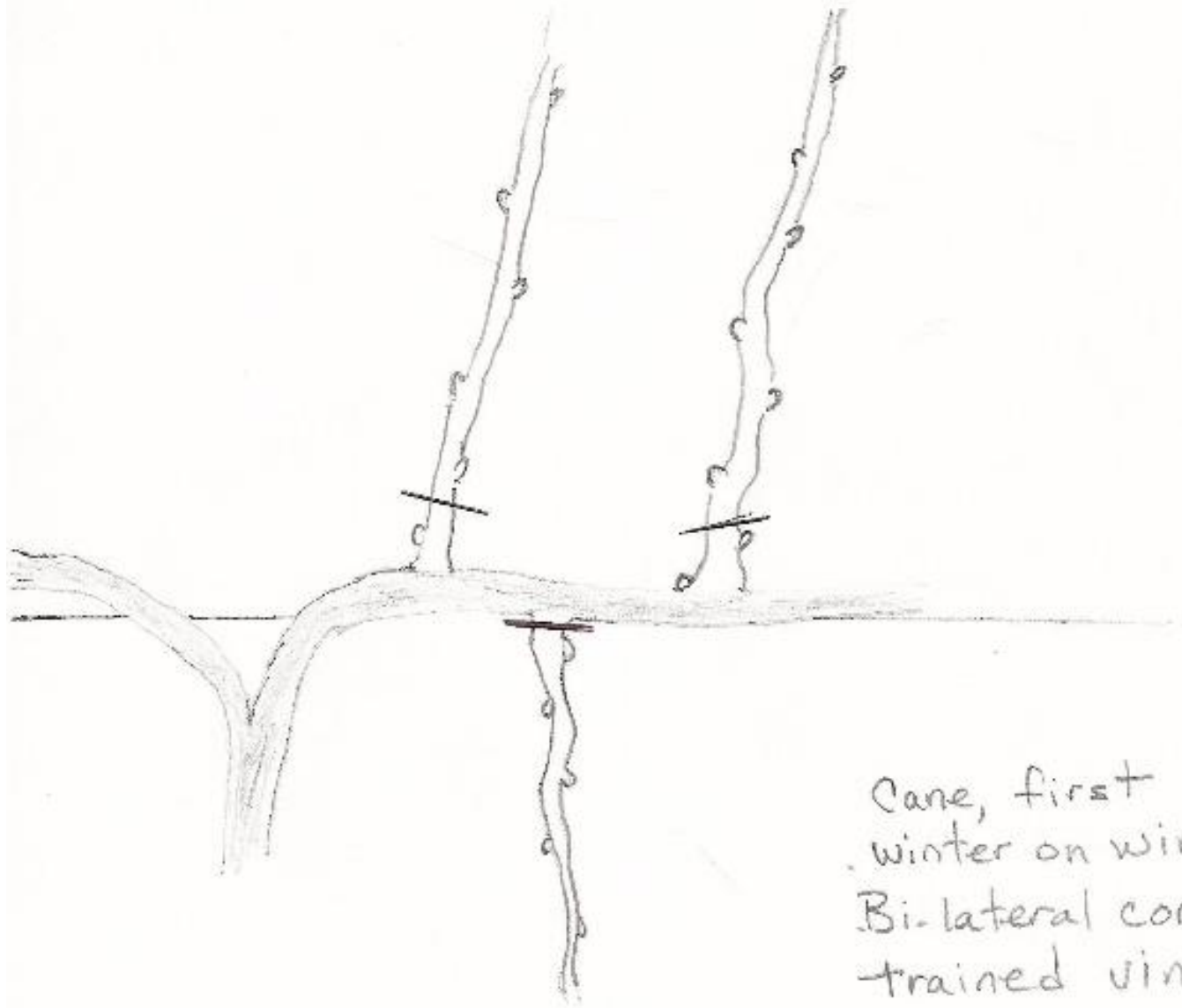
PRUNING TRAINS THE YOUNG VINE



First winter.
Prune to next
step.



Prune to
bi-lateral
cordon.
(First winter)



Cane, first
winter on wire.
Bi-lateral cordon
trained vine.



Head trained,
cane pruned.



Take Home Message

- Pruning is performed in the winter dormant period
- We are a CRAFT winery, so we prune for quality (2.5 – 5 tons) not quantity (8 – 16 tons)
- White wine pruned to protect fragile aromatics, avoid vegetal (green) taste and give the winemaker supporting acids
- Red wine pruned to develop complexity, color, antioxidants and a balance between acid and ripeness to give the winemaker a larger “tool kit of compounds” . A nice tan not a sunburn
- We have predominantly Vertical Shoot Position (VSP) with a few Head-Trained vines (Block 19 TR parking lot)

Field Practice

