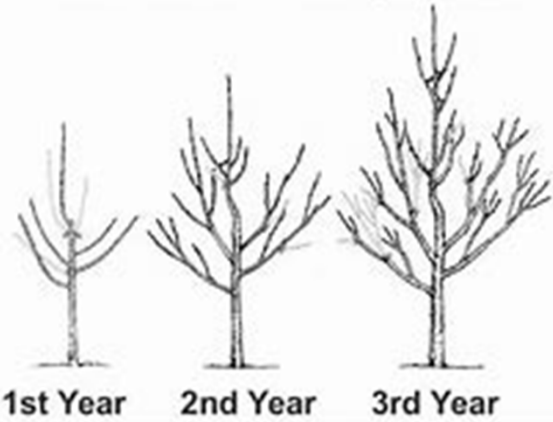


CHANGING TO HIGH DENSITY

THE OLD

- Central leader
- Leave main scaffold limbs permanently

Central Leader Pruning Method



PROS:

- *Less expensive to start*
- *300 to 750 trees to the acre*
- *No trellis system to build*



CONS:

- *Wasted space between trees, especially in tops*
- *Lower production per acre*
- *Harder to prune and Harvest*
- *Slower to come into production*



THE NEW

- High Density
 - Tall spindle
 - Super spindle
 - Fruiting wall



PROS:

- Higher Pack outs/Better fruit quality
- Higher production per acre
- Easier pruning and harvest
- Faster into production



CONS:

- *More expensive to start*
- *800 to 2200 trees per acre*
- *Time building the support system*

GETTING STARTED

Make sure the site is ready

Take soil samples

Fix any drainage issues

**CHOOSING THE
ROOTSTOCKS**

- *Pick what is right for your system*
 - *How high do you want the final trees? Pick your own might want shorter trees*
 - *What are the soils like? High fertility vs low*
 - *Tree spacing? 4 ft down to 18 inches. 3ft is most common*
 - *How is the drainage?*
 - *What varieties are you planting, what is their vigor?*
 - *If it was an orchard consider Replant disease*

ROOT STOCKS:

- *Plan ahead, order ahead*
- *Don't leave it up to chance and just take what they have*
 - *Biggest mistake you can make*
 - *Long term commitment, get it right the first time*
 - *Can get a discount for prebud contracts*

**ROOT STOCKS:
SIZES**

- *Smallest:*
Slightly Bigger:
Largest:
 - G 65
Bud 10 M 26
 - Bud 9
Nic 29 G 30
 - M 9
G 41 G 935
 - G 11
G 214 G 210

**CHOOSE THE
ROOT STOCK
FOR THE
VARIETY**

- *Weaker varieties need a bigger root stock:*
 - Honeycrisp
 - Any of it's sports
 - Fuji

THE SUPPORT SYSTEM



BUILDING THE TRELLIS:

- *How high will the top wire be?*
- *Height of trees should be 90% of row width ? Some pushing this now.*
- *Post size; don't under size; setting up for huge failure later*
- *At least 6 inch for end posts , 4 to 5 inch for line posts*
- *No more than 40 ft apart*
- *Posts should be 3 to 4 ft into the ground*
- *Will you add hail netting?*

ATTACHING THE TREES

- *How many wires? 3 to 9*
- *Central support for each tree? Bamboo, vertical wire?*
- *U clips or tubing?*



END OF THE ROW

- *Anchor on the end posts*
- *Or H brace*





**H BRACE:
EASIER IF YOU ARE
DIGGING THEM IN.**

**ANCHOR ON
THE END**

- ▶Faster to put up
- ▶Can buy cable kits already to go





DIFFERENT WAY TO DO THE ENDS

THE ANCHOR

- *Angled post is 2nd post in line.*
- *Top of slanted post is anchored to bottom of first post to hold it.*
- *Advantage is you can plant all the way to end of row, but more cost in big posts*



THE ANCHOR

- ▶ *Slanted post is secured to an earth anchor or short post.*
- ▶ *Some secure the trellis wires to the slanted post.*
- ▶ *Some drill the slanted post and bring all the wires through and attach to the earth anchor.*



CHANGING OVER EXISTING ORCHARD

*Graft over or top work
Can work if rootstock is right
Spacing up to maybe 9 ft.
Want to change variety*



TOP WORKING

- *Bring up in a “V”*
- *Put the number of grafts on you want to divide the spacing:*
- *Example if currently trees spaced 4 ft apart put 2 grafts to get to 2 foot spacing, if 9 ft apart, put 3 to get to 3 ft spacing.*
- *We always put one extra graft on to have a spare incase one does not take.*

TOP WORKING

