

Training Dwarf Sweet Cherry for Hand Harvest

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Principles at Planting

- Tree grows most vigorous at (or near) the highest point.
- The deeper the central leader is headed and the more limbs are removed, the stronger the growth from the remaining buds.
- Buds form limbs most readily near the top.
- The height of topping depends on tree size, vigor of soil, climate, variety, etc.
- Trees are nearly always whipped at planting. Save feathers only if plant spacing is close and trees are exceptionally large with at least three nice limbs coming out at wide crotch angles above the desired height for lowest limbs. If feathers are kept, head back feathers about 50%.
- Debudding is generally not recommended at planting, but may be desirable if tree is large and/or buds are plentiful. Debud by removing 3-5 buds below terminal bud plus every other bud, but do this only with very large trees.
- Avoid removing any roots, unless damaged.
- Want lowest limbs about 24-30" (60-75 cm) above ground.

Early Summer

Place clothespins above newly developing limbs where the crotch angle is too narrow when limbs are 3-5" (8-13 cm) long. Large clothespins work better than standard pins. Delaying beyond this time will limit the ability to improve the crotch angle. The desired crotch angle is 90° (horizontal).

Mid Summer

If some potential scaffolds are growing too upright, then they may be tied down, but keep them above horizontal.

Year Two

Dormant:

- Completely remove limbs below desired height of lowest limb, which is generally 24-30" (60-75 cm) above ground.
- Select 4-6 scaffolds with wide crotch angles.
- Remove upright limbs with narrow crotch angles with a horizontal cut that leaves the bud at the base of the limbs. This cut will generally stimulate a branch to form during the coming season at this point that will naturally form a wide crotch angle.
- Limbs above desired scaffolds that have wide enough crotch angles should remain, but if too upright or dominant, these can be tied or weighted down, or cut back to 8-10" (20-25 cm) stubs.
- Leader is headed to about 36" (90 cm) if over this length.
- Debud leader by removing the buds for 3-4" (8-10 cm) below the terminal bud. This includes removing buds on either side of the terminal bud if the terminal was not headed. If last year's growth was less than about 30" (75 cm), also remove every other bud on last year's terminal growth; greater than 30" (76 cm), remove 2 out of 3 buds.
- Remove shoots (if any) that grew on last year's terminal growth.

Scaffold Management

Scaffold management the first 3 to 4 years deserves some discussion. Protocol coming from Europe indicates that scaffolds are never headed. This seems very appropriate if trees are placed close enough together so that scaffolds have little space to fill or if trees are growing in a location with strong growing conditions. However, in NW Michigan where vigor is generally low (due to sandy soils, cool climate and possibly orchard replant complex), I am seeing trees on Gisela rootstocks seriously over cropping in some situations in about year four. This over cropping can lead to a near shut down of terminal growth. If this happens to scaffolds before the trees have filled the allotted space, then yield will not reach desired levels. Therefore, my suggestions are as follows:

- If dwarf trees are spaced at over 6 feet (2 m) between trees and if they are growing under relatively weak growing conditions (most unirrigated and some irrigated situations in NW Michigan), I suggest heading scaffolds after first, second and possibly third years of growth. Always head to an upright bud. Under very low vigor conditions, the shoot developing from the upright bud may be desirable. However, under most conditions this upright shoot is removed in favor of a more outward growing shoot. This heading will reduce the fruit potential by reducing the number of future spurs.
- If trees are spaced fairly close, are growing under more vigorous conditions and/or the scion variety is particularly non-precocious, then heading cuts on scaffolds may want to be reduced in severity or scaffolds may want to be left unheaded.

Summer

Generally no manipulation is necessary, unless trees were small at planting and therefore not all scaffolds were selected in the dormant season. If more scaffolds are desired, then use clothespins to spread new limbs where desired for scaffolds.

Year Three & Four

Dormant:

- Head leader to 30" if necessary
- Debudding leaders in year 3 may be desirable, but generally no debudding is done after year 3.
- Remove very upright limbs with horizontal cut. Can begin removing or shortening back limbs that are too dominant. Generally prune little on vigorous trees and slow to bear varieties, but highly precocious varieties and/or weak growing conditions may dictate heavier pruning to balance cropping and vigor.

Years Five Plus

Prune to maintain adequate vigor and light. Because of the high productivity, the pruning may need to be more severe to attain adequate growth to achieve large fruit size. The extent of this pruning is determined by tree vigor, precocity, variety, and desired fruit size.