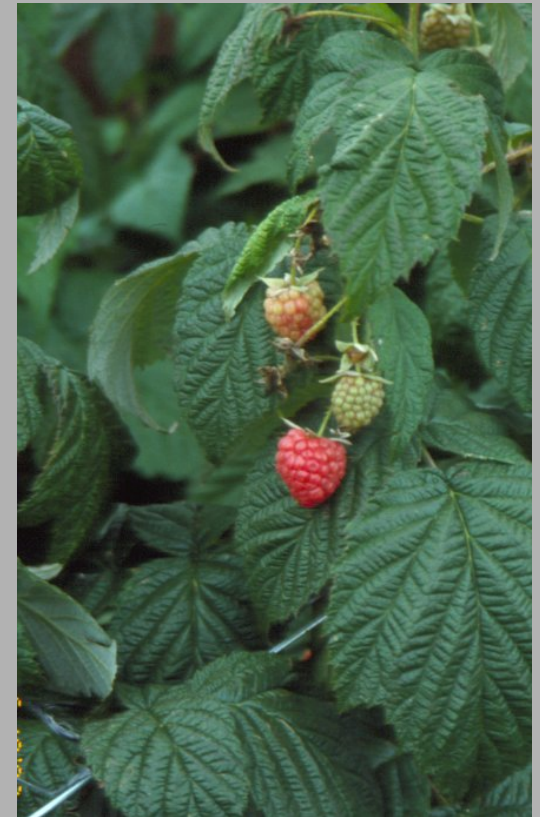


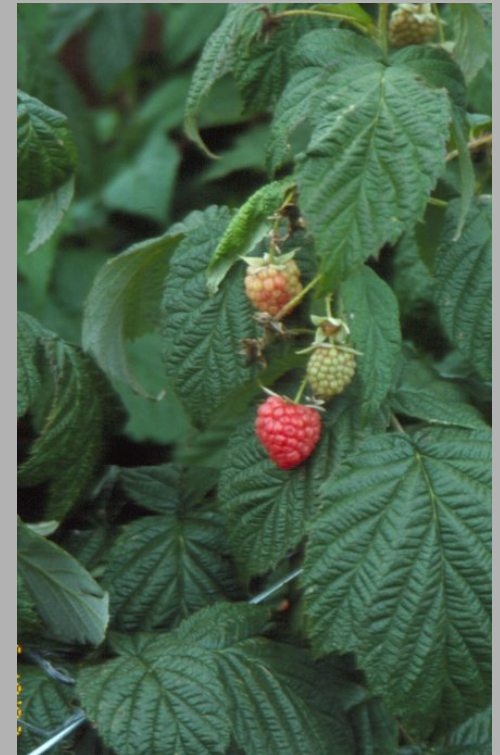
# *Raspberry and Blackberry Production and Marketing*

*Mark Gaskell  
Farm Advisor  
University de California  
Santa Maria*



## *Background / Overview*

- ★ *Characteristics*
- ★ *Varieties*
- ★ *Market Trends*
- ★ *Management*
  - establishment*
  - trellising / pruning*
- ★ *Harvest and packing*
- ★ *Post Harvest*

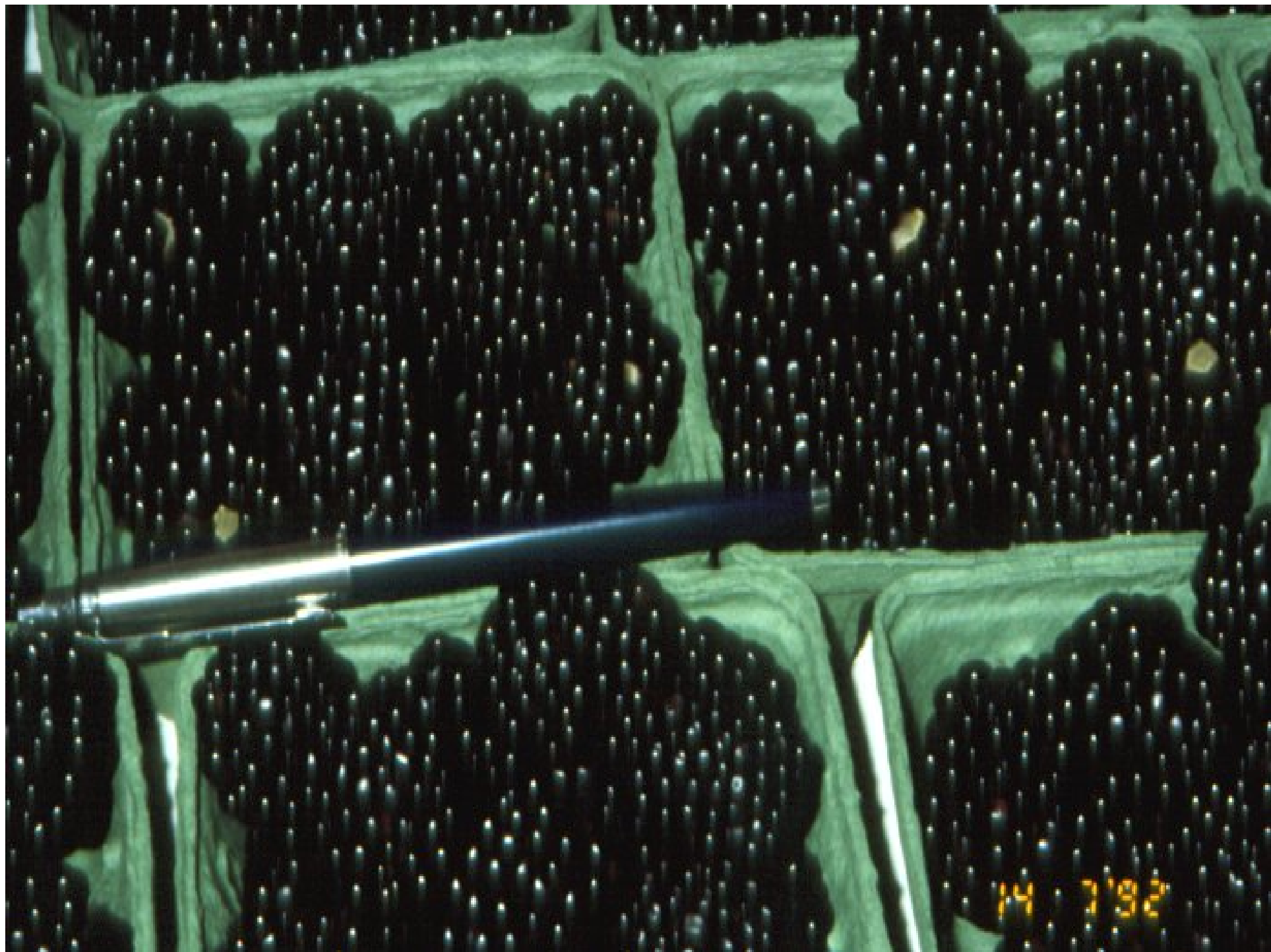




















## *Raspberry VS Blackberry*



*no receptacle*



*receptacle*

## *Raspberry and Blackberry Varieties*

### *★ Raspberries*

*'Primocane fruiting' produces at tips on new primocanes - manage to harvest only primocane fruit or prune for early second season pick*

*examples: Autumn Bliss, Summit, Autumn Byrd, Caroline, Heritage?*

### *★ Blackberries*

*varieties with low chill requirement*

*erect, semi-erect varieties*

*thorny or thorn-free varieties*

*examples: Navajo, Arapaho, Triple Crown, Apache, Chester*



## *Blackberry Varieties Evaluated*

<i>Variety</i>	<i>Origin</i>
<i>Thorny</i>	
<i>Roseborough</i>	<i>Texas</i>
<i>Shawnee</i>	<i>Arkansas</i>
<i>Choctaw</i>	<i>Arkansas</i>
<i>Thornless</i>	
<i>Arapaho</i>	<i>Arkansas</i>
<i>Navajo</i>	<i>Arkansas</i>
<i>Black Satin</i>	<i>Maryland (USDA)</i>
<i>Triple Crown</i>	<i>Maryland (USDA)</i>
<i>Apache</i>	<i>Arkansas</i>
<i>Chester</i>	<i>Illinois (USDA)</i>

## *Blackberry Varieties*

*Determine varieties of blackberries to extend the traditional harvest season*

- Ollalieberry y Boysenberry most common in California - May and June*  
*later Chester and Black Satin*

*Blackberries - no production in the establishment year.*

*Raspberries produce 4-5 months from planting*

*Potential Production varies 4 oz - ~ 1 lb per plant per week in the second year ~ 5 - 10 lb total.*



## *Blackberry Harvest Periods by Variety*

	Jan	Feb	Mar	Apr	May	Jun	Jul	Agt	Sept	Oct	Nov	Dec
<i>Rosborough</i>				xxx	xxx	xx						
<i>Arapaho</i>					xx	xxx	xxx	xxx	xxx	xxx	???	
<i>Shawnee</i>					x	xxx						
<i>Navajo</i>						xxx	xxx	xxx	xxx	xxx	???	
<i>Ollalie</i>					xx	xxx						
<i>Boysen</i>					x	xxx						
<i>Black Satin</i>							x	xxx	xxx	xxx	???	
<i>Chester</i>							x	xxx	xxx	xxx	???	
<i>Choctaw</i>							x	xxx	xxx	???		
<i>Trip Crown</i>							? xx	xxx	xxx	???		
<i>Apache</i>							xxx	xxx	xxx	???		

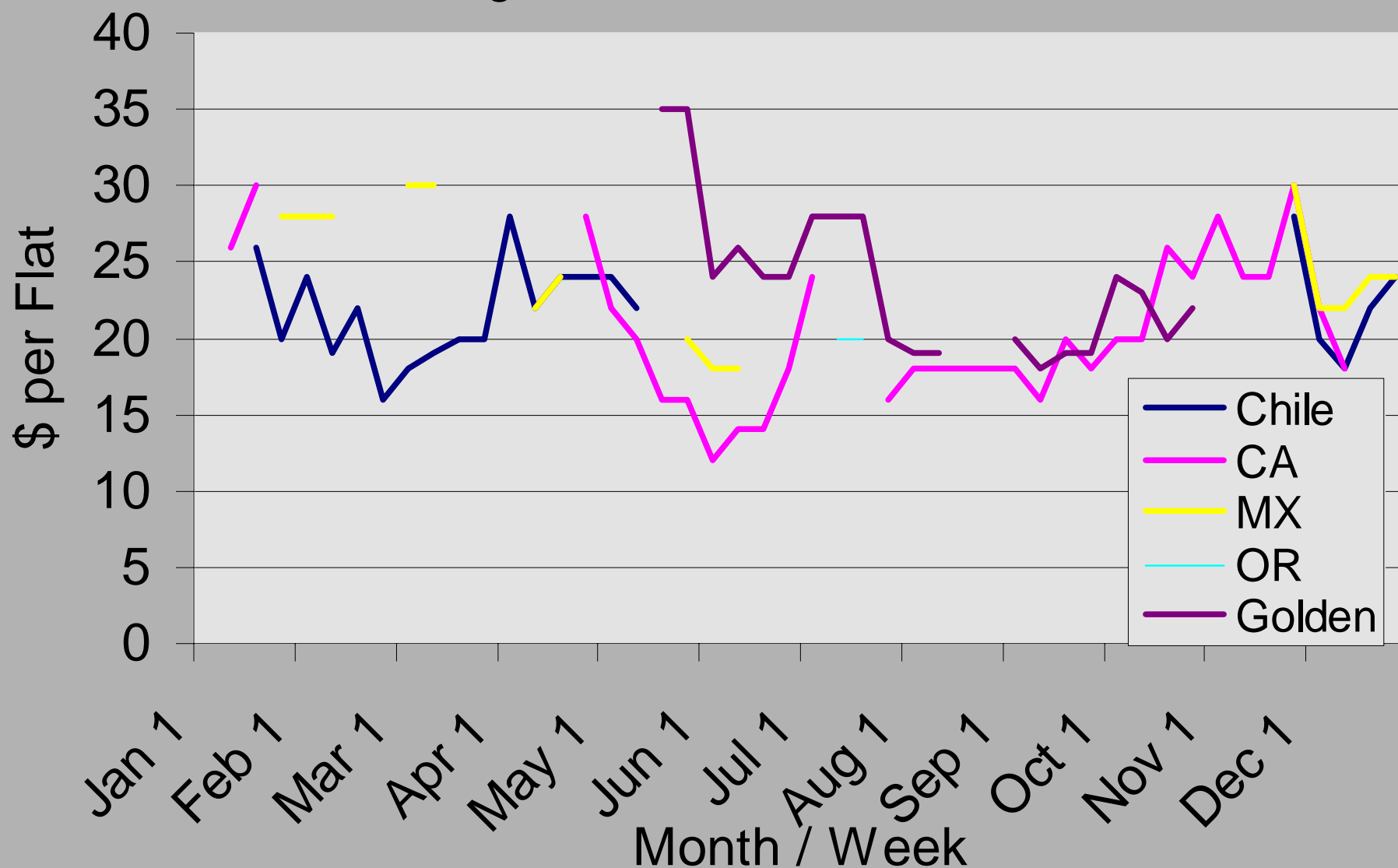


*Well managed  
primocane fruiting  
raspberries will  
provide continuous  
harvest Apr/May to  
Nov/Dec*

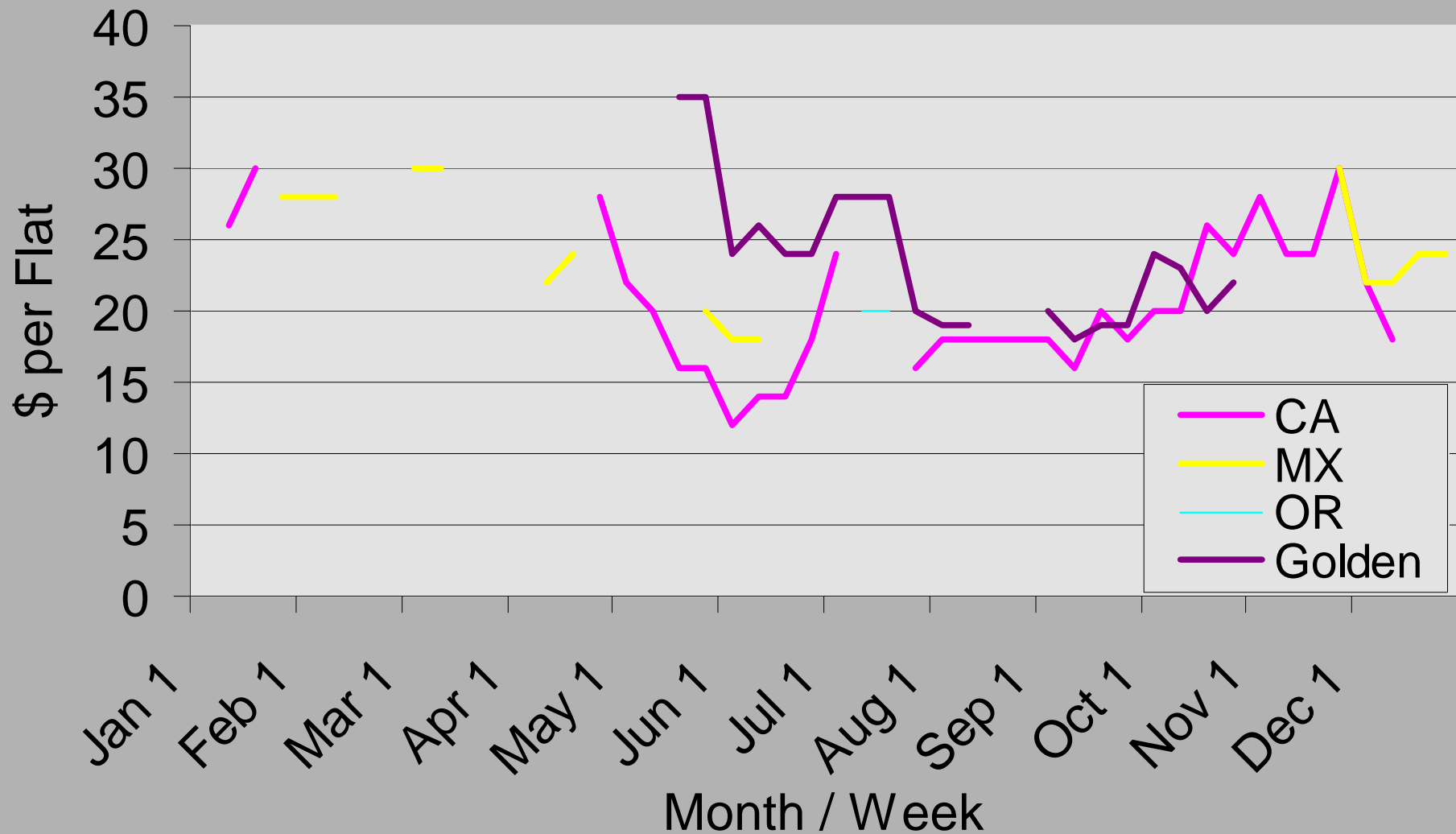




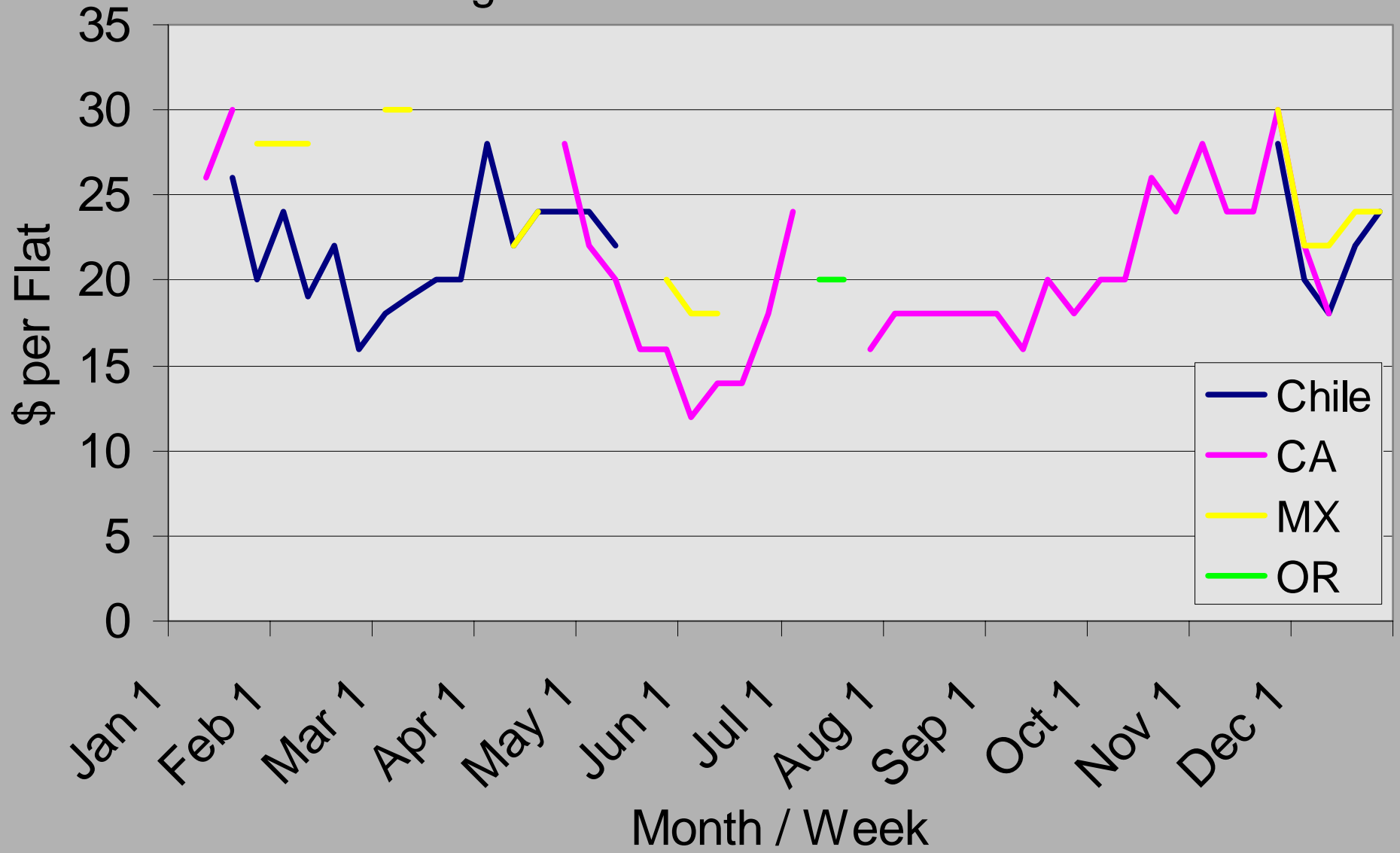
# Fresh Raspberry Wholesale Prices (high) Los Angeles Terminal Market - 2003



# Fresh Raspberry Wholesale Prices (high) Los Angeles Terminal Market - 2003

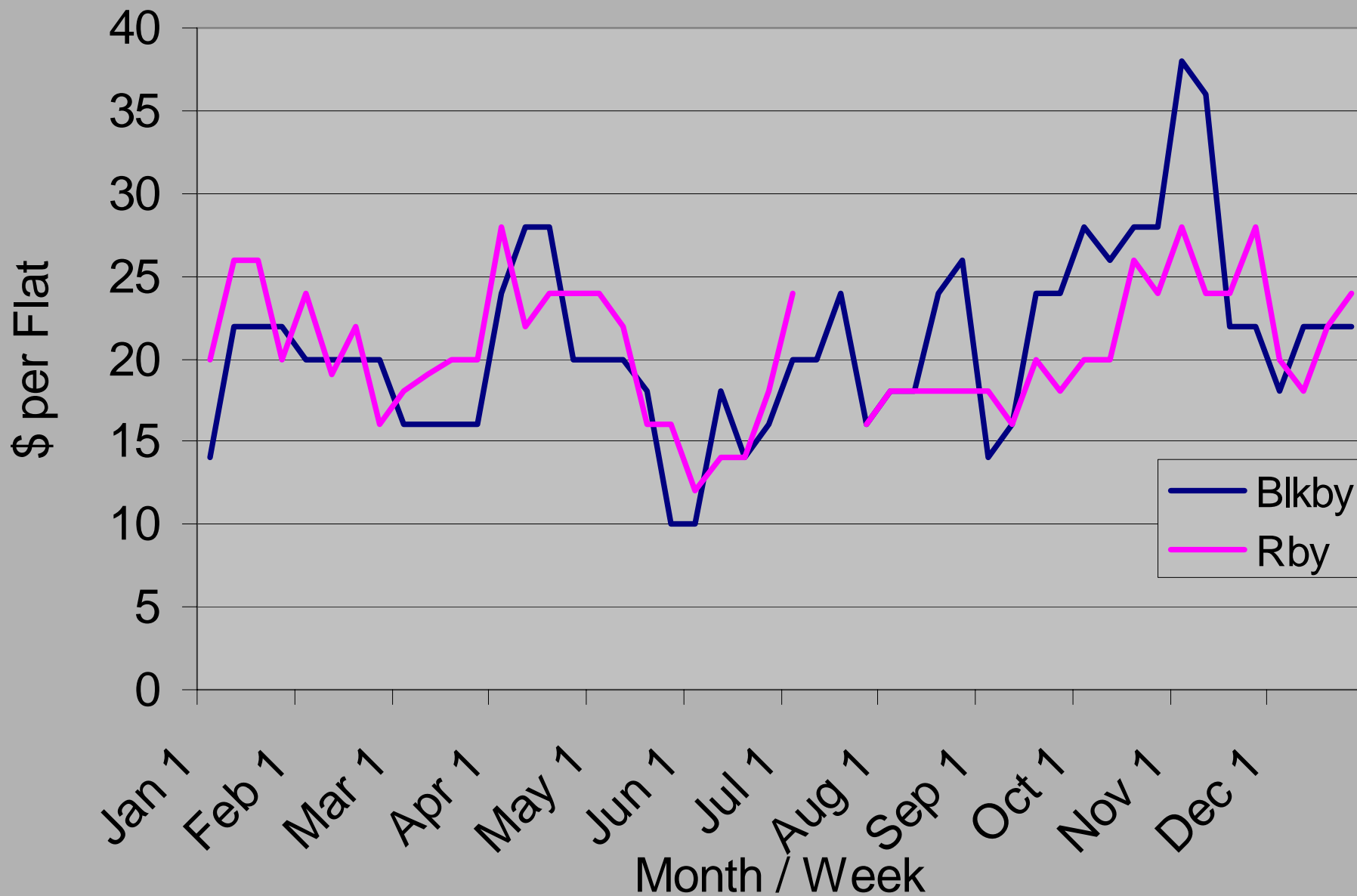


# Fresh Red Raspberry Wholesale Prices Los Angeles Terminal Market - 2003





# Fresh Raspberry and Blackberry Wholesale Prices Los Angeles Terminal Market - 2003



## *Market Trends*

- ★ Wholesale price typically \$15 - \$30 per flat (12/6) year around. These are HIGHS.*
- ★ Wholesale prices are representative prices from USDA Market News surveys - LA Terminal Market*
  - to arrive at farm gate prices - 30%*
  - costs / charges to wholesale market variable*
- ★ Price can vary markedly on the same date*
  - quality*



*Red spider mite*  
*(Tetranychus sp.)*  
*Pest mite*



*Phytoselius persimilis*  
*- Predator mite*



## *Cultural Practices - Establishment*

- ★ *Raised beds, with mulch*
- ★ *Light or heavy soils if adequate drainage pH 5.5 -7; incorporate P, K and other needed nutrients (except N) in the bed at planting.*
- ★ *Distance between row depends on equipment needs typically 6 - 10 ft.*
- ★ *Distance between plants 40"-50" for blackberry and variable for raspberry 1 - 3 ft.*
- ★ *Irrigation furrow, sprinkler or drip. Drip allows more careful control of water, timely harvest, dry foliage.*
- ★ *Trellising system? Single lines with blackberry VS double lines with raspberry  
cement posts at end / wood*

























*camas  
elevadas con  
'mulch'  
o cobertura  
de material  
orgánica*





## *Plant development - blackberry*

*Blackberry plants do not fill in - can distinguish individual plants - 3 ft.*









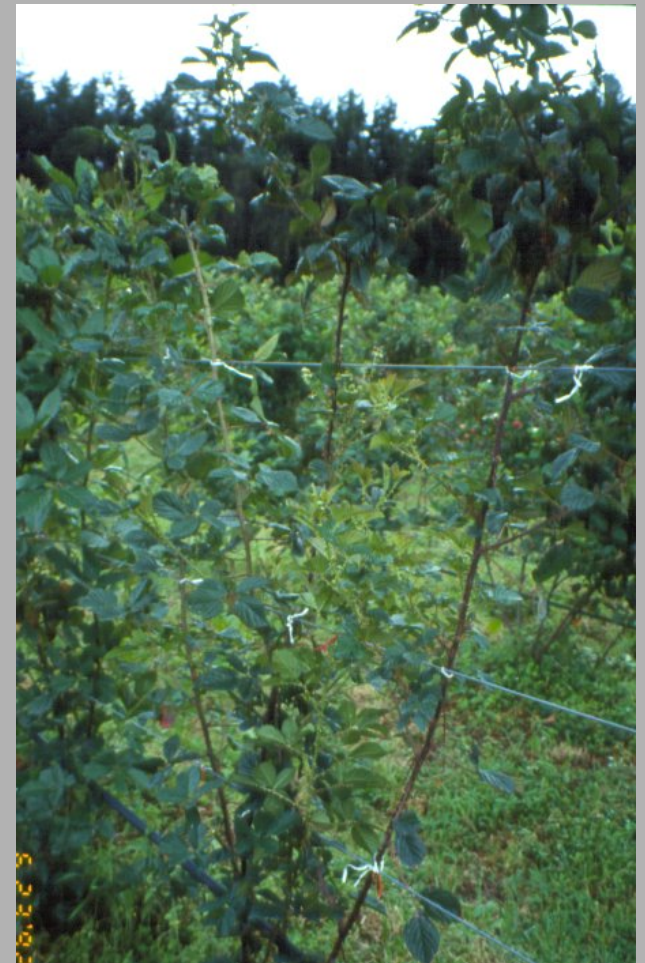
## *Plant development - Raspberry*

*Eventually forms a solid hedge from suckers*



## *Cultural practices - Trellising*

- ★ *manage vegetative growth*
  - *allow entry of light and improve air circulation*
  - manage disease*
  - easier harvest, thinning and pruning*
- ★ *protect canes*



## *Cultural Practices - pruning*

*Pruning enables:*

- ★ *manage vegetative growth*
  - *structure for hanging fruit*
  - *field work*
- ★ *control of fruit size and quality*
- ★ *control and assist harvest*
- ★ *eliminate damage and disease*

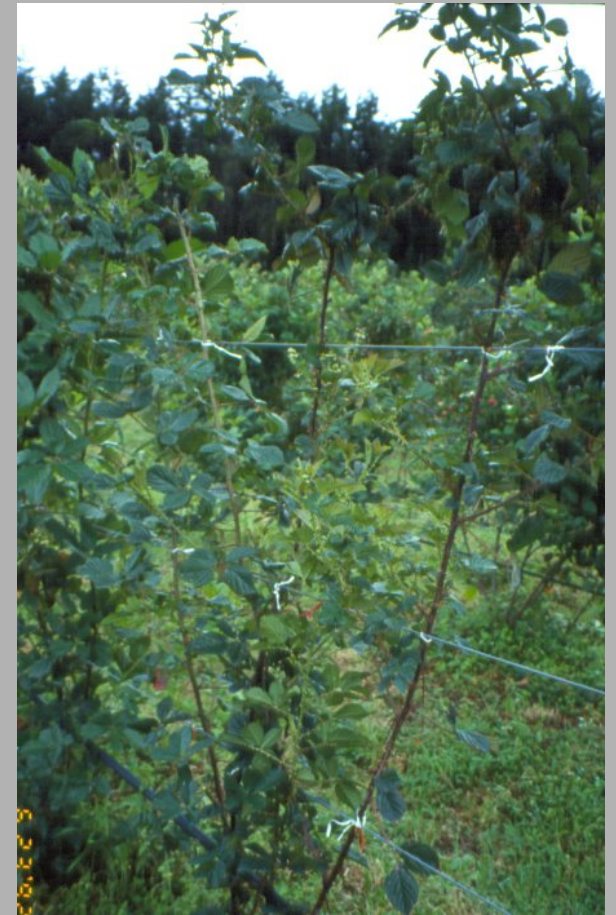


## *Trellising and pruning - blackberry*

*blackberry:*

*single rows of  
wires*

*branches tied  
to wires*

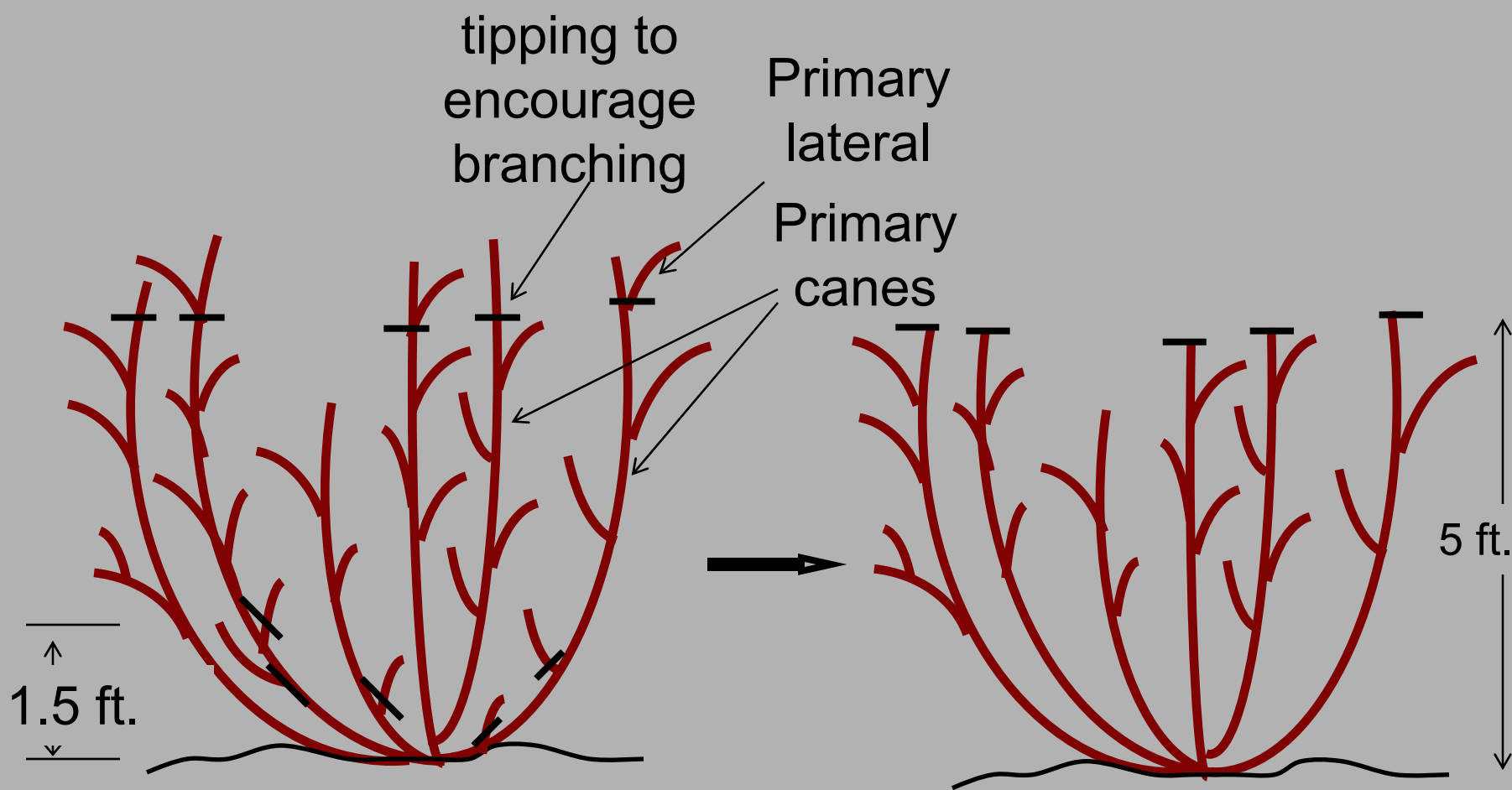




## *Blackberry*

*Flowers on  
secondary  
branches of  
older (2<sup>nd</sup> yr)  
canes.*











# *Raspberrrry*

*Flowers on  
new  
primocanes as  
well as second  
year canes*

*Best to  
harvest only  
primocanes*



## *Trellising and pruning - raspberries*

- ★ *prune raspberries at ground level following harvest*
- ★ *often can prune raspberries at 4-5 ft for extending the picking.*





## *Pruning and trellising - raspberries*

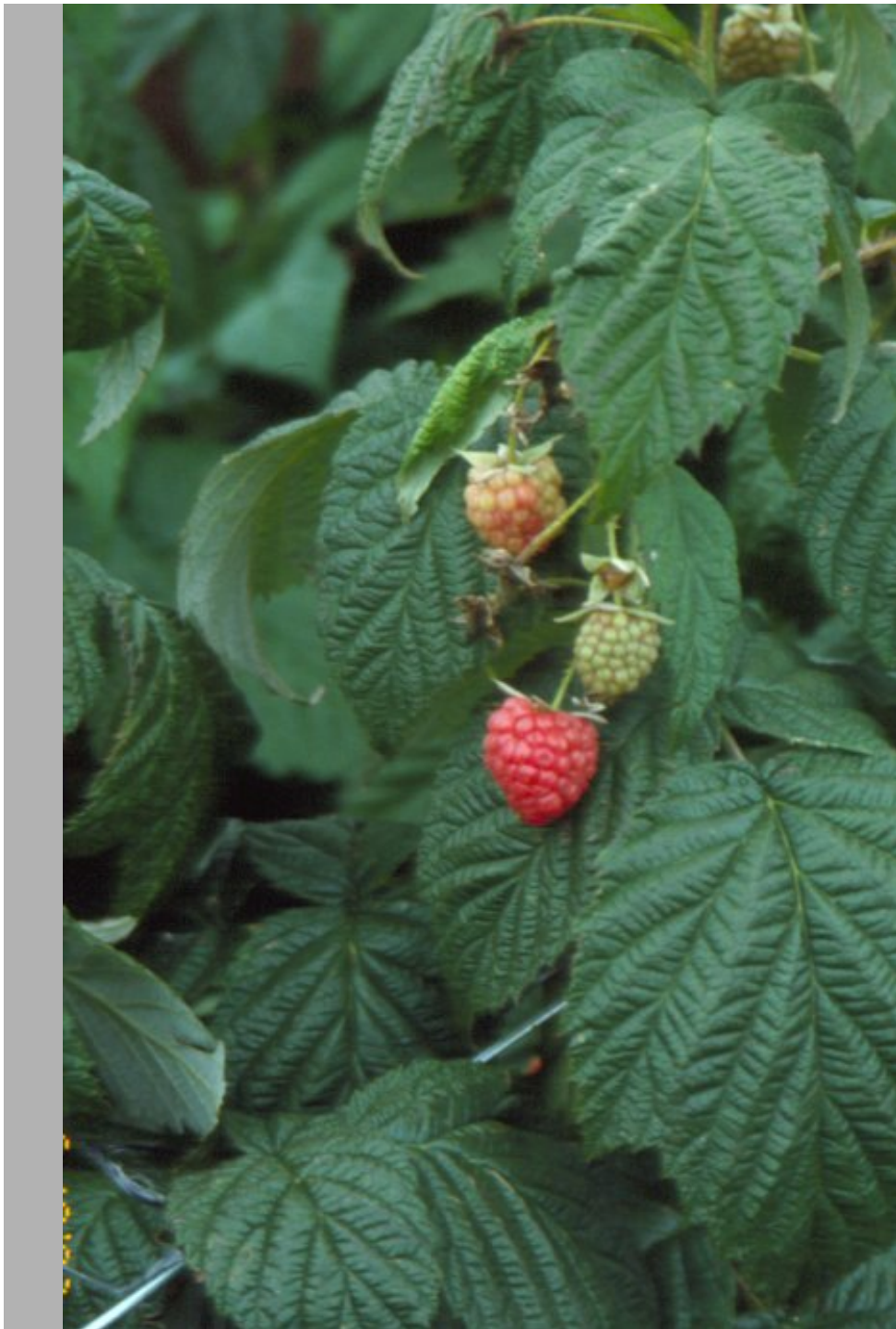
*raspberries form continuous rows with double wires*











*Primocane fruiting  
raspberry can be  
selectively pruned  
down cane by cane or  
mowed down to the soil  
surface following  
harvest*









## *Harvest*

*Handle fruit carefully and place in baskets no deeper than 2 inches.*

### *Blackberry Harvest*

*Riper fruit is dull.*

*Less ripe fruit is shiny  
- can adjust maturity to  
post harvest needs.*

*At times the fruit turns  
red in storage and the  
quality declines.*

*variety?  
immature harvest?  
high temperatures?  
condensation?*

### *Raspberry Harvest*

*Fruit comes free from  
the receptacle.*

*Lighter color to more  
distant markets.*

- no gain in sugars*
- color darkens*



## *Harvesting*

- ★ *Harvest at least 2 X per week*
- ★ *For local market harvest shiny fruit for best flavor.*
- ★ *For shipping use varieties like Triple Crown, Cheyenne, Choctaw, Kiowa.*
- ★ *Shawnee, Triple Crown, have acceptable flavor only if harvested dull.*
- ★ *Varieties such as Navaho y Arapaho have firm fruit even if harvested dull black.*













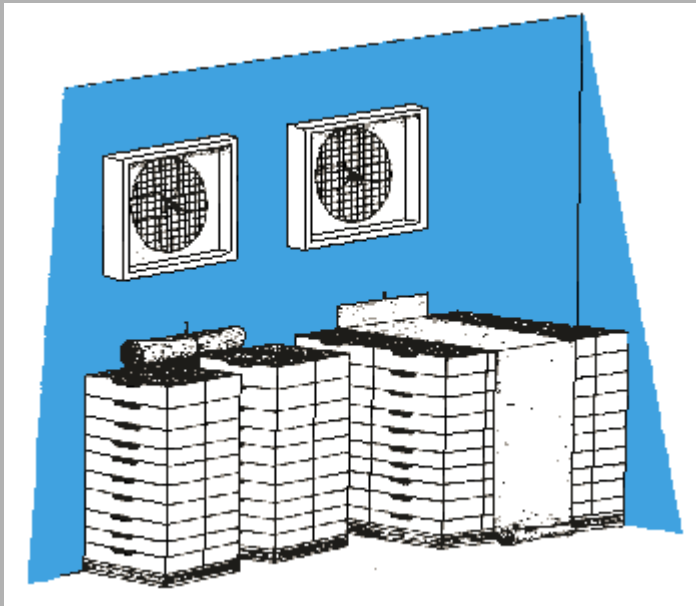






## *Forced air pre-cooling*

*Forced air removes field heat more quickly and extends shelf life*





















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