

# *Responses of Primocane Blackberries to Varying Mow-down and Tipping Regimes*

*Mark Gaskell, Farm Advisor  
San Luis Obispo and Santa Barbara  
Counties*



## *Primocane fruiting*

- *Fruit on first year canes*
- *Mow down to eliminate all of prior season's canes*
- *More flexible management?*
- *Acceptable fruit quality*





## *Early trials with primocanes*

- *Prime Jim / Prime Jan*
  - *newer varieties now available*
  - *PrimeArk 45, Reuben (EU)*
- *Arkansas VS Oregon; also NC*
- *Little published work in CA*



## *Factors affecting growth and development*

- *Temperature*
- *Mowing > primo VS floricanes*
- *Tipping*
  - *cane density*
  - *branch density*
  - *nodes, fruits per node*
  - *fruit size*
- *Timing is important*



## *Temperature*

- *Faster growth*
- *Earlier harvest*
- *Faster development*
  - flower buds and tipping*
- *Tunnels accelerate harvest date*



## *Earlier primocane trials (OR)*

- *Emergence to first bloom*

*~ 1290-1390 GDD*

- *Emergence to peak harvest*

*~ 2450 GDD*

- *Critical developmental stages related to bloom, fruit set*



## *Mow-down time*

- *Earlier > earlier regrowth*
  - *match market price?*
  - *earlier fruit is larger*
- *Earlier harvest*
- *Earlier development*
  - *flower buds and tipping*
- *Plants may appear similar but different developmental stages*



## *Tip pruning (tipping)*

- *Top 3" - 6" for soft*
- *Hard is on older canes*





## *Tipping*

- *May affect harvest date*
  - *timing?*
- *Stimulates branching*
  - *increase number of branches*
  - *raises branch height*
- *Yield*
  - > *increases branch number and yield*
- *"soft" VS "hard" pruning*



## *Earlier studies with primocanes*

- *Tip pruning is important*
  - *Soft tipping at 3 ft increased yield 114 - 150% compared to un-tipped*
- > more branches and fruiting nodes and higher % fruiting nodes*





## *Earlier studies with primocanes*

- *Soft tipping did not delay harvest*
  - > this may depend on when*
  
- *Soft tipping may advance 1 week if not too late*
  - *before buds have formed*
  - *increase yield without delay*
  
- *Tipping after flower buds form*
  - > delays harvest*

## *"Hard" pruning*

- *Hard prune at 3 ft. potentially goes back to older wood and more mature buds.*
- *May advance harvest?*
- *If mow back already cut canes at 18" then delays fruiting 4 weeks*



## *Earlier studies with primocanes*

- Producing in unheated tunnel in OR extended season by 3 weeks*
- Protection from sunburn during hot periods - CA*



## *Earlier row-cover studies*

- *Row covers advanced harvest 14 days*
  - *cover from prior to shooting until 18" high (OR)*
- *in NC study no effect of row covers if removed after shorter period*
- *Use of row covers advanced bloom and increased yield 73% compared to untreated*
- *Row covers > no increase in cane number*

## *Tipping affects fruiting and cane number*

- Need to increase branch number for high yield*
- More branches / cane, longer branches, more nodes, more fruiting nodes, and higher berry weight*
- % fruiting nodes greater on branches than main canes*



# *Pruning trials with PrimeArk-45 San Luis Obispo Co. 2012 season*

- *Open field production*
- *Three mow – down dates  
Jan 10, March 10, May 10*
- *Tipping heights  
- 18", 50" and 18/50*





*Results: Pruning trials with PrimeArk-45  
San Luis Obispo Co. - 2012 season*

- January pruning is earliest and highest yielding*
- March mow-down appears similar to January but harvest advanced 3-4 weeks in January mowing*
- March and May mow-down is too late  
- lose market and yield*
- 18" tipping important  
50" tipping > too late*

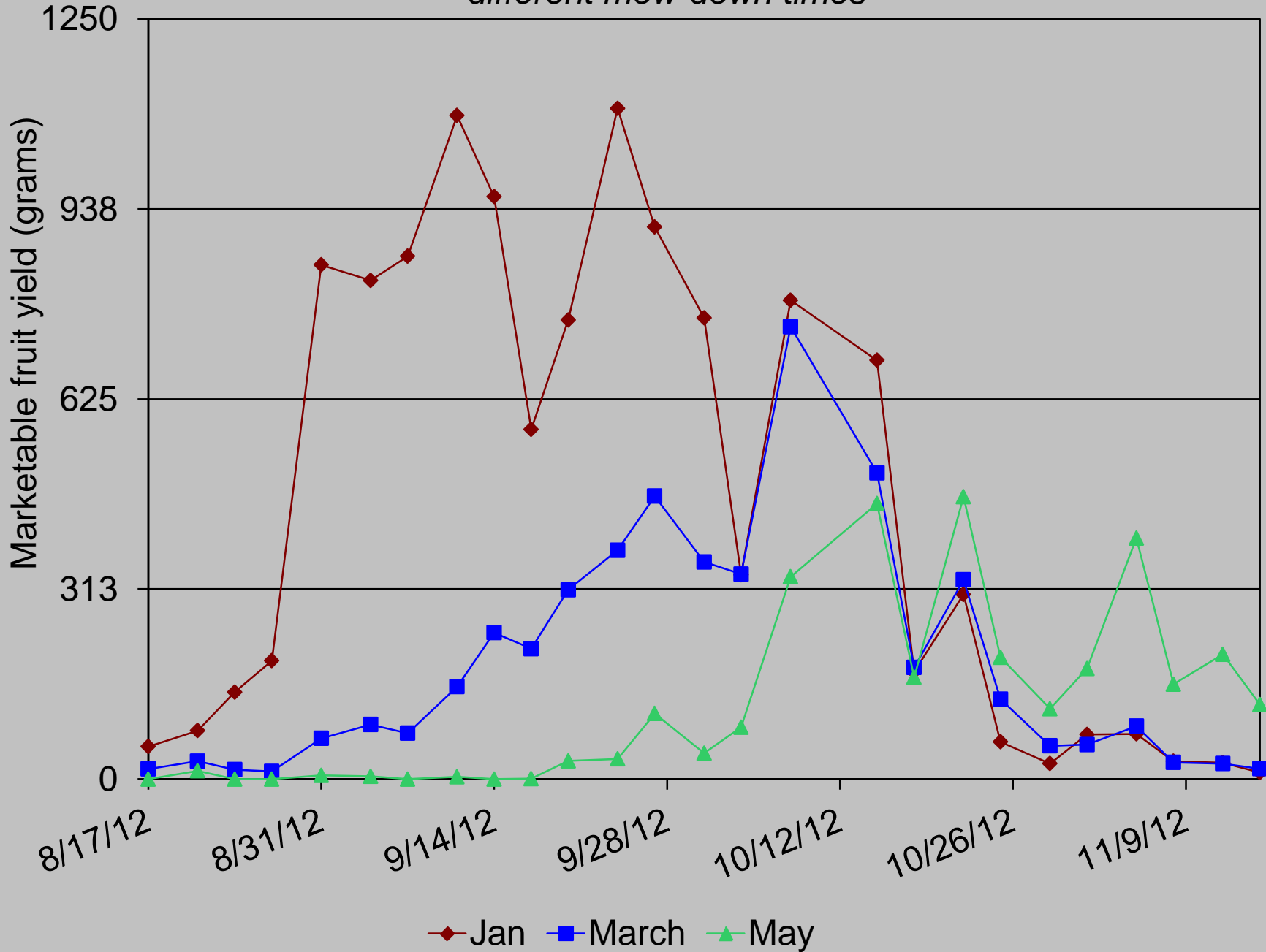


*Total marketable blackberry yield following different mow-down times*

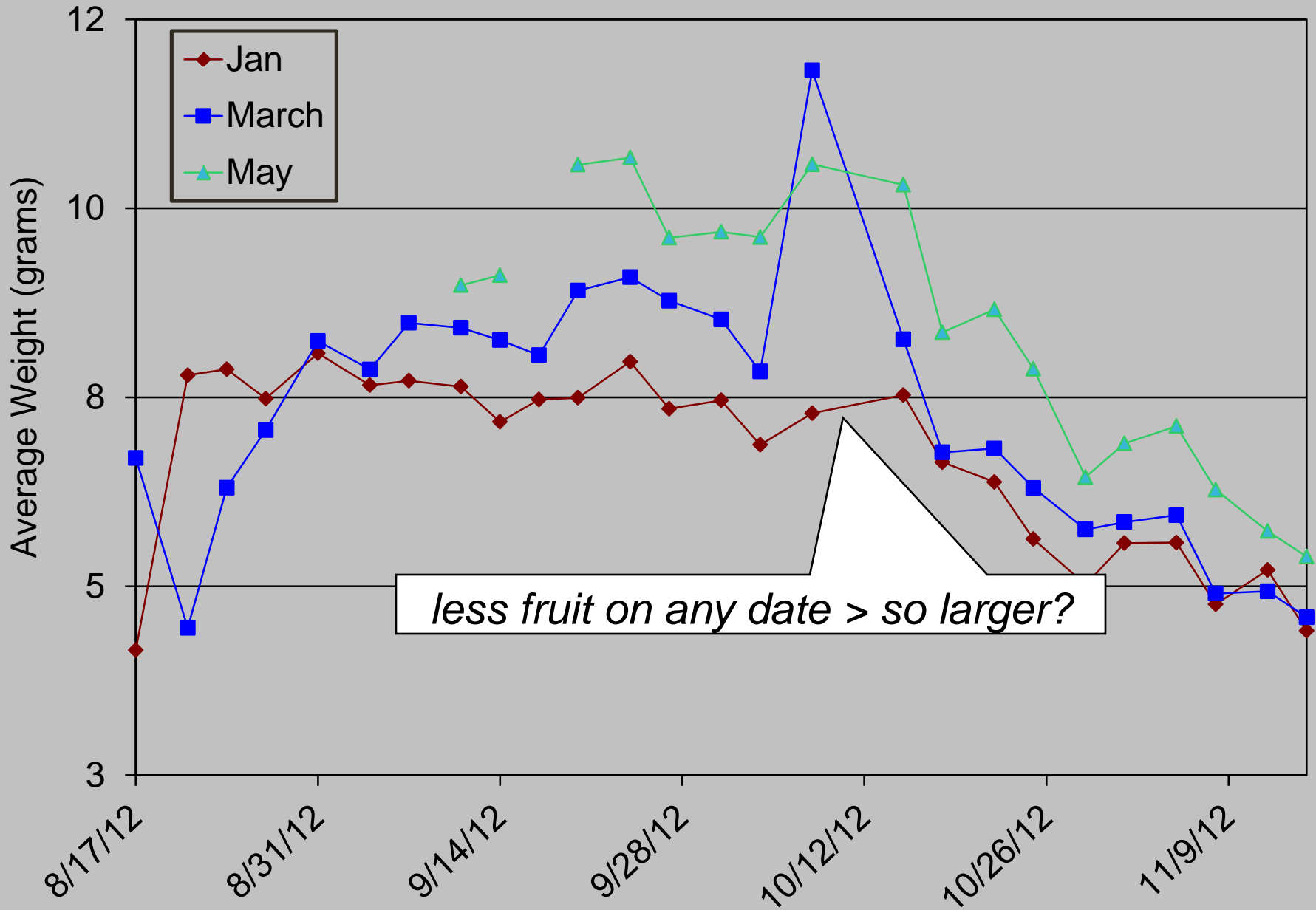


	January mow	March mow	May mow
		- Total marketable -	
kg per plot	11.74	4.92	3.12
lb per acre	12,930	5,420	3,436

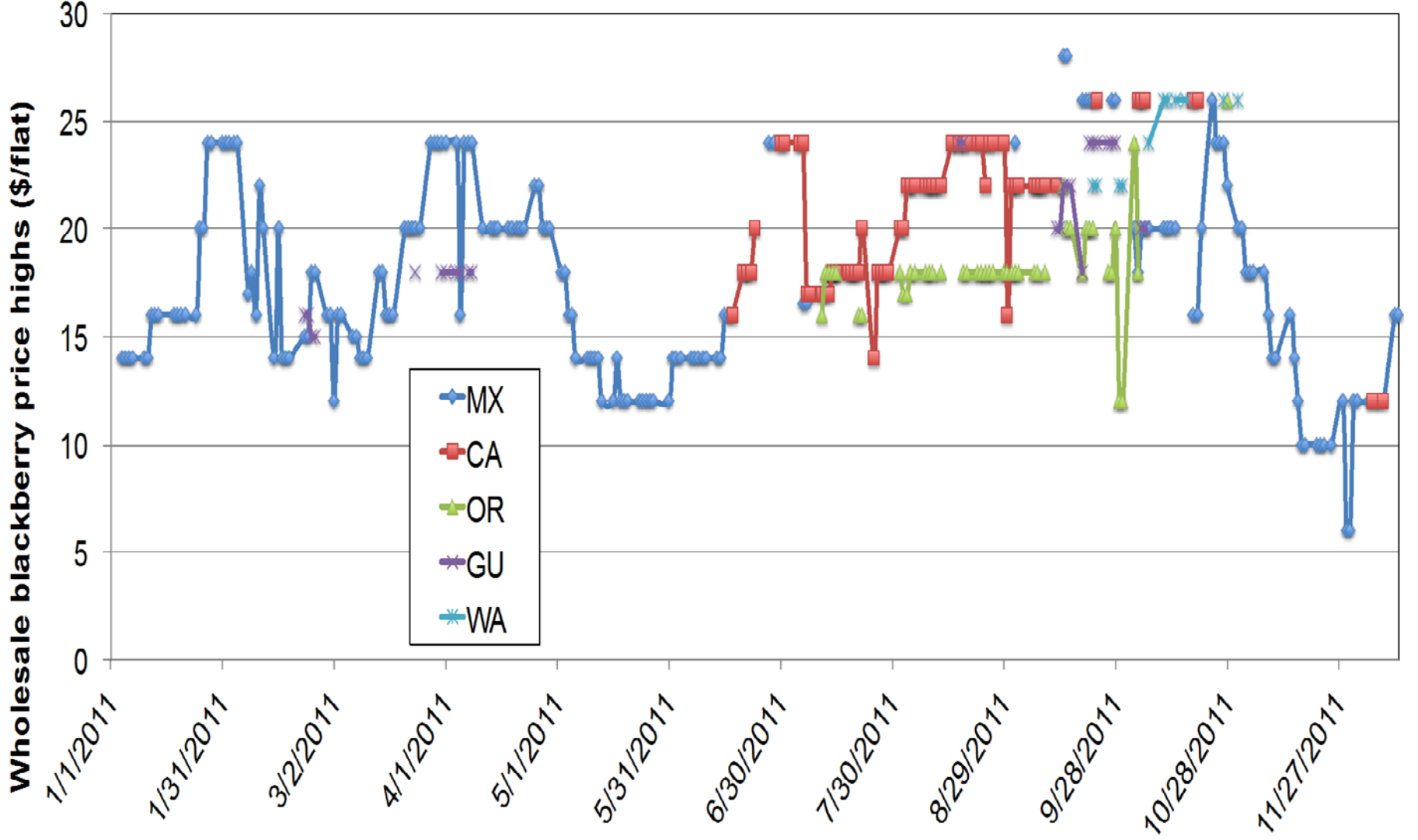
*Weekly marketable yield of Primeark 45 blackberries following different mow-down times*



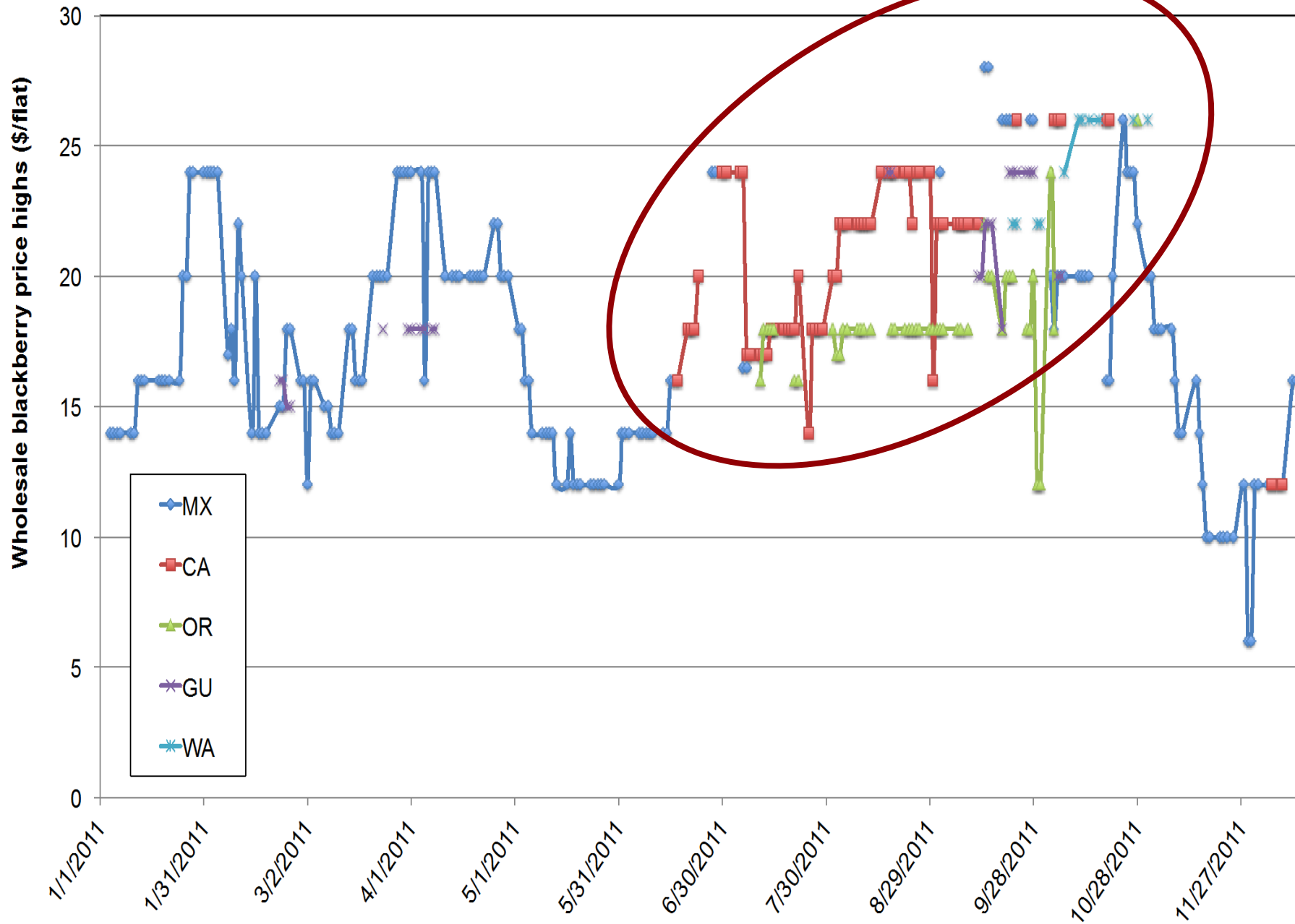
*Fruit weight of Primeark 45 blackberries following different mow-down dates*



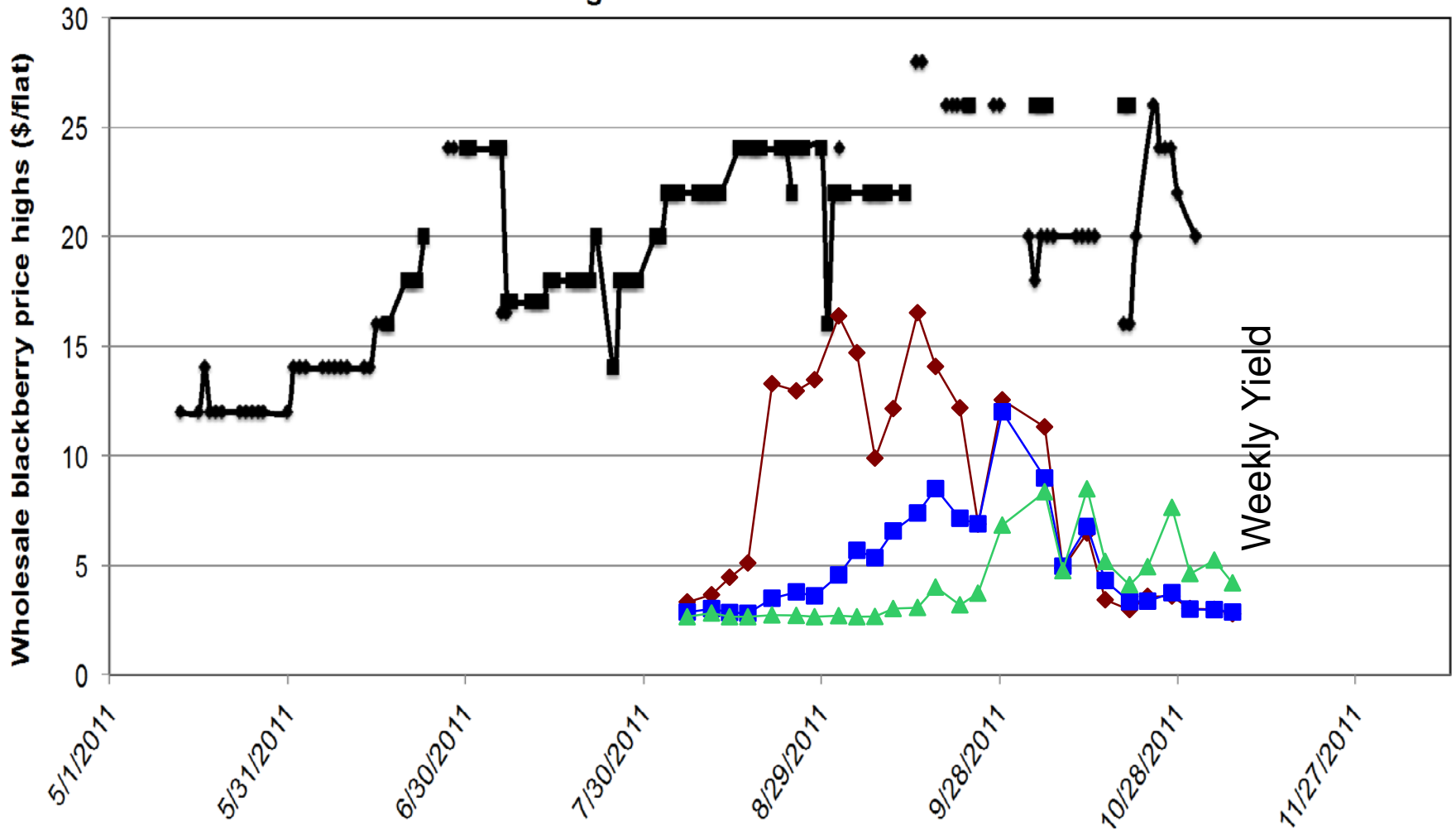
Weekly Fresh Blackberry Wholesale Prices (highs)  
Los Angeles Terminal Market - 2011



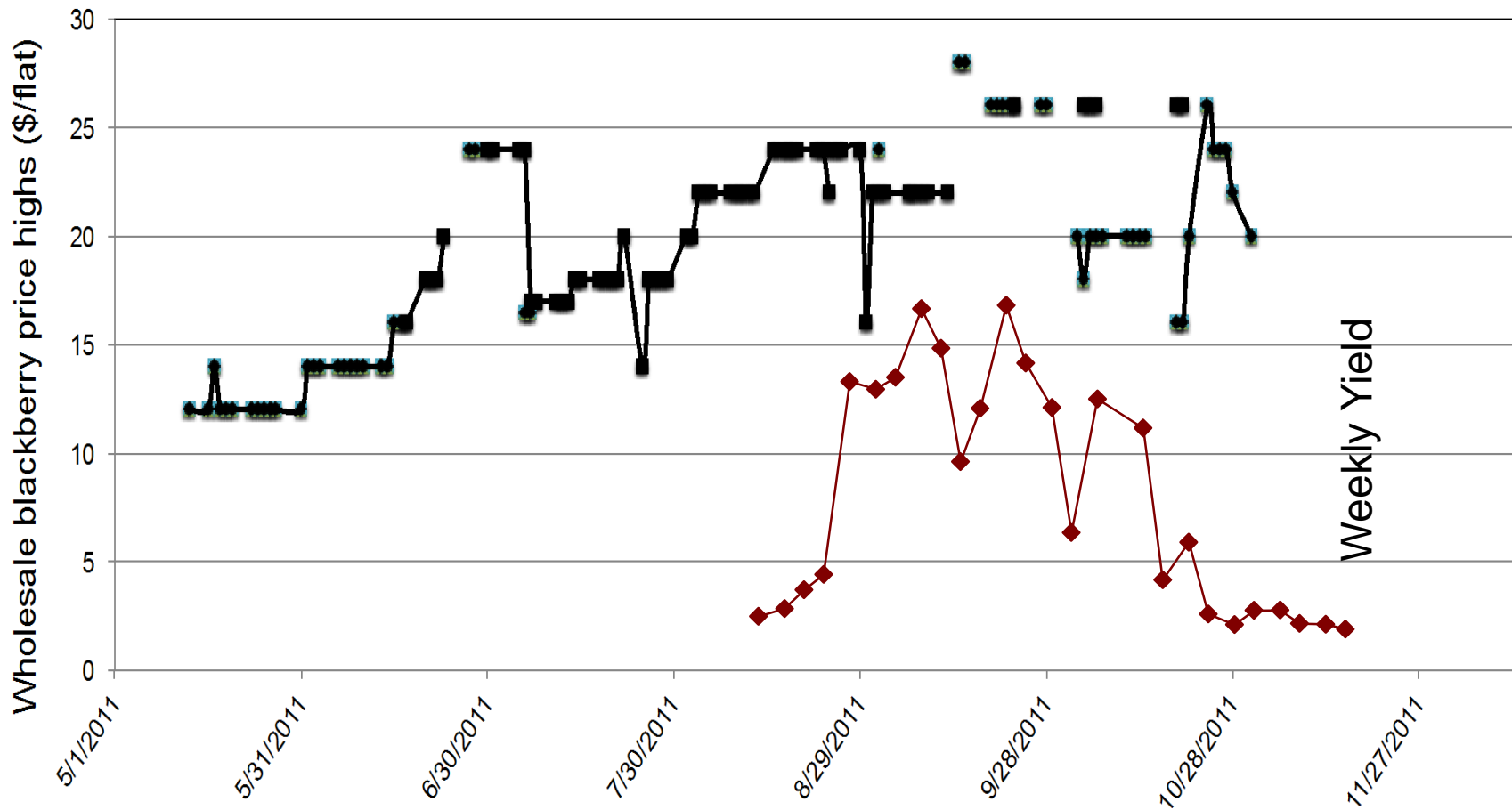
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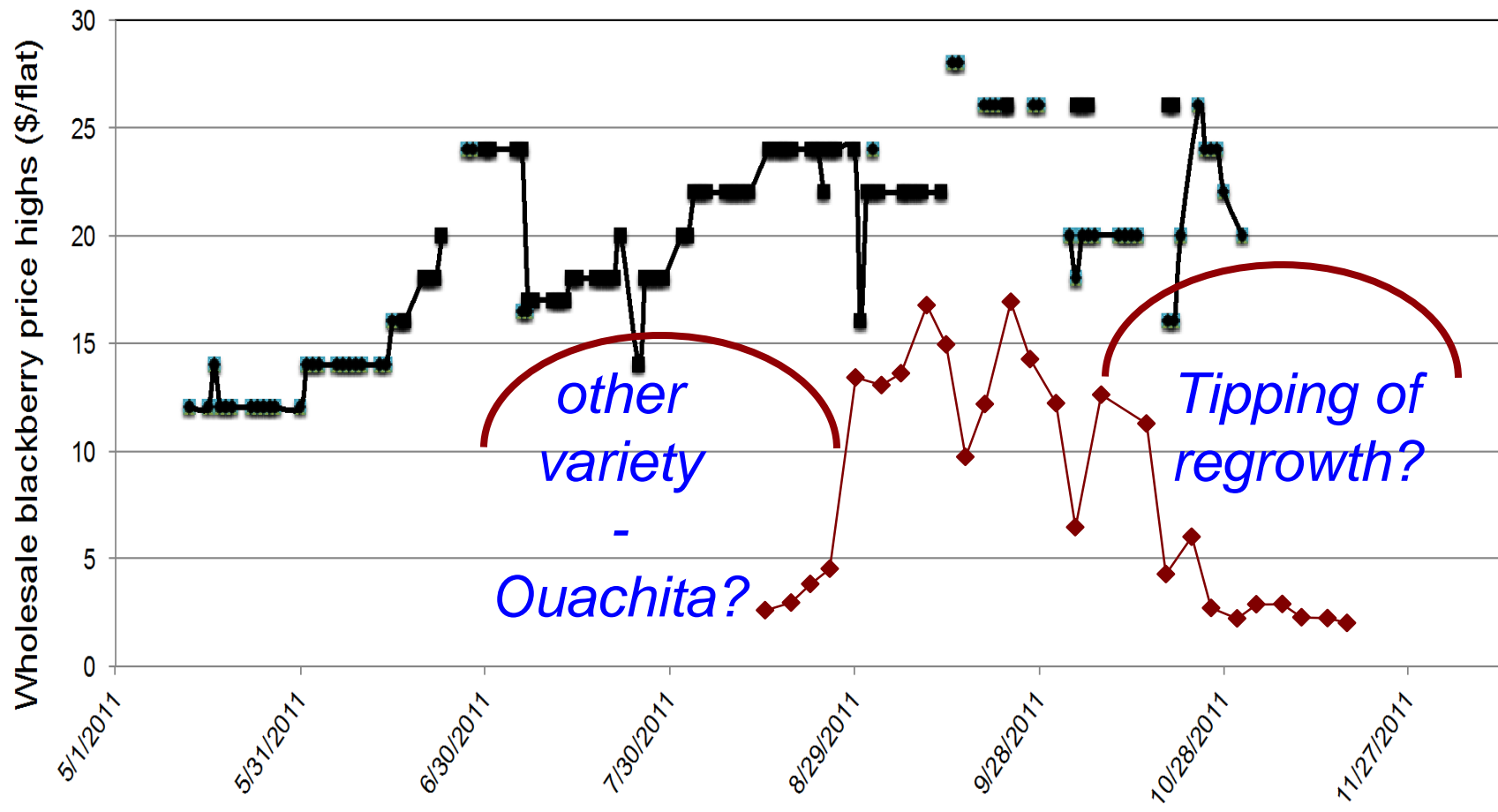


Weekly Fresh Blackberry Wholesale Prices (highs)  
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Weekly Fresh Blackberry Wholesale Prices (highs)  
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## *Vegetative management*

- *Cut at soil surface*
- *Crown can become woody trunk*
  - *below ground cutting ?*
  - *need to replant after ~5 years?*



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