

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

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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*

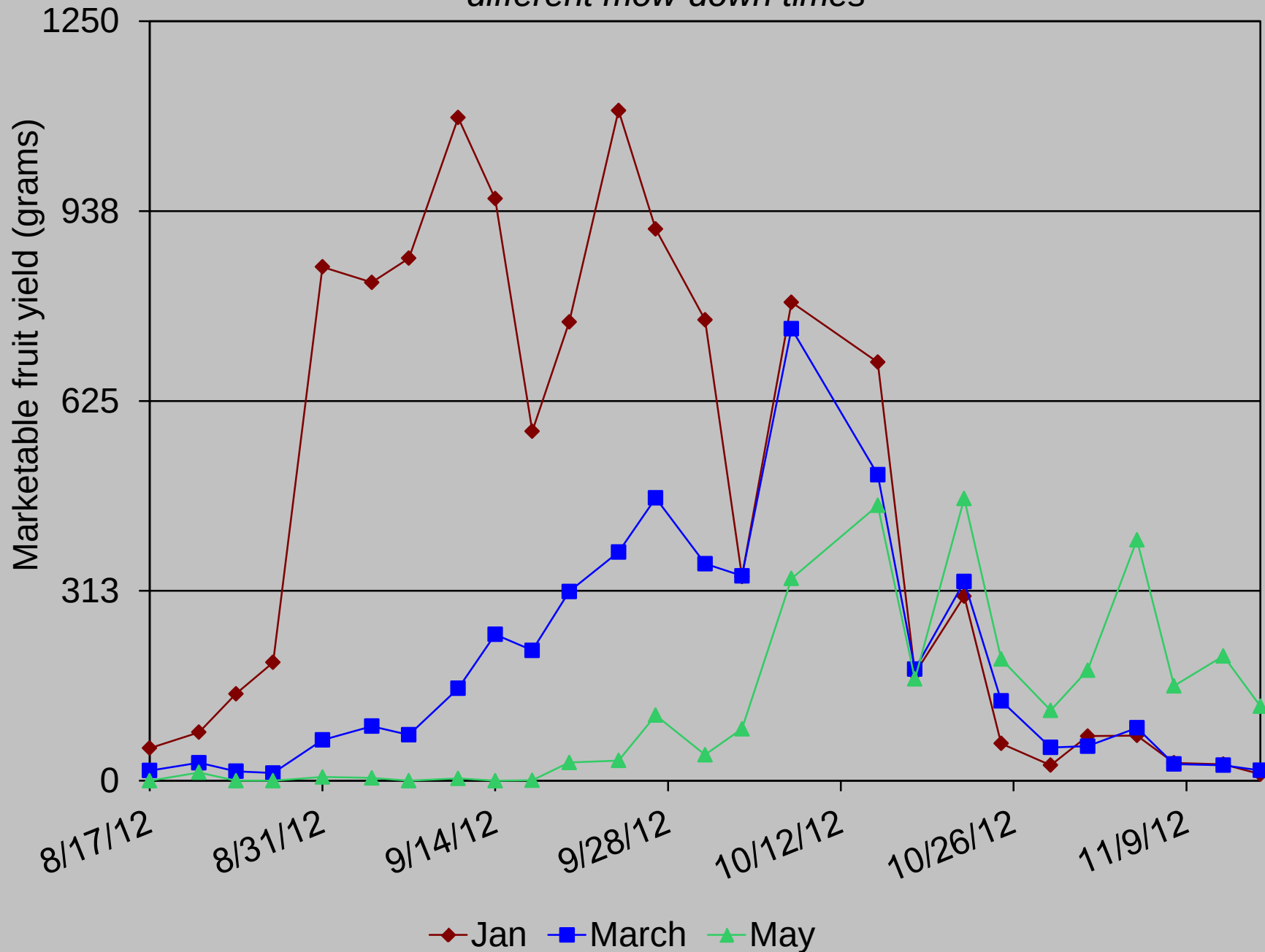


Total marketable blackberry yield following different mow-down times

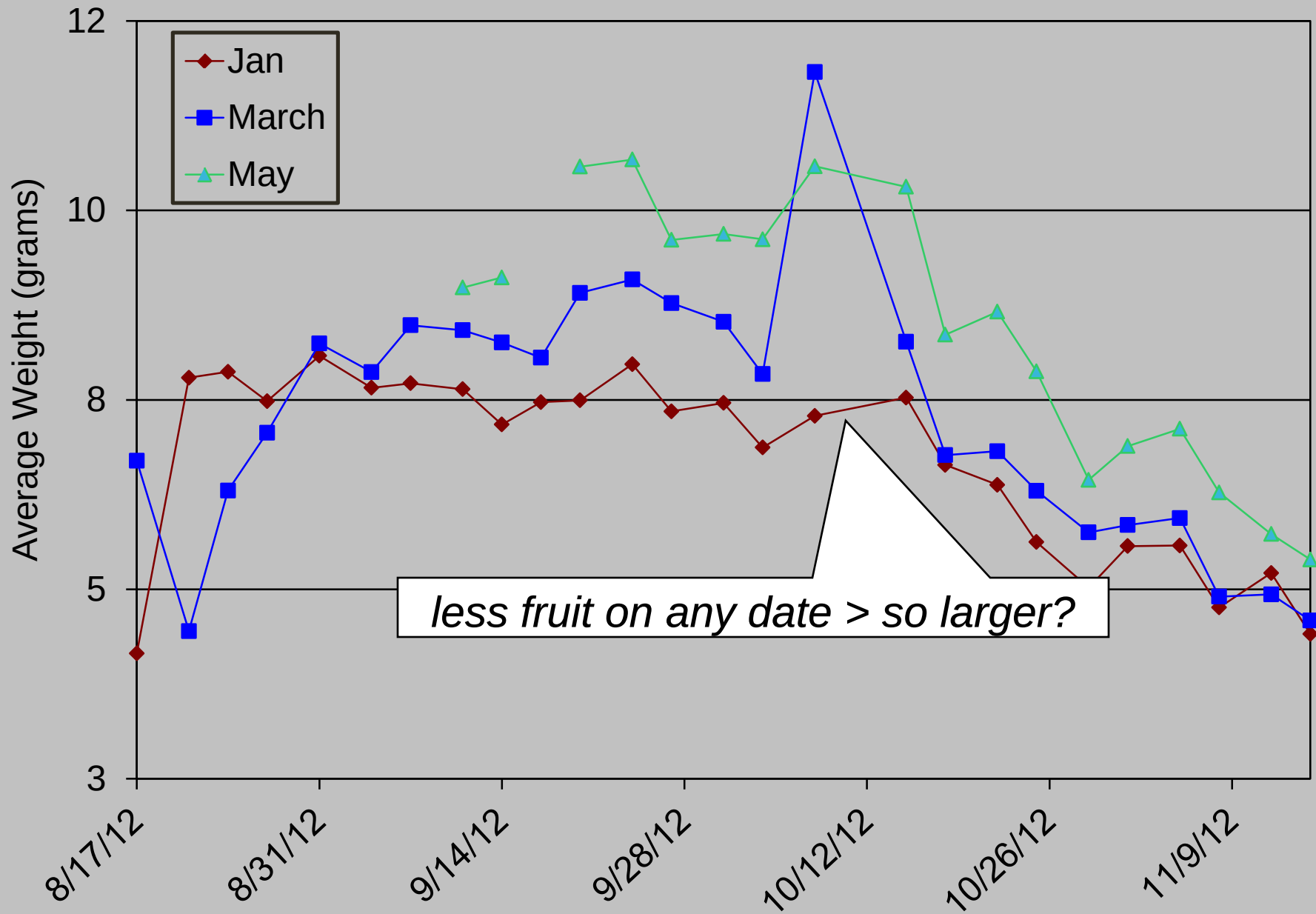


	January mow	March mow	May mow
		- Total marketable -	
kg per plot	11.74	4.92	3.12
lb per acre	12,930	5,420	3,436

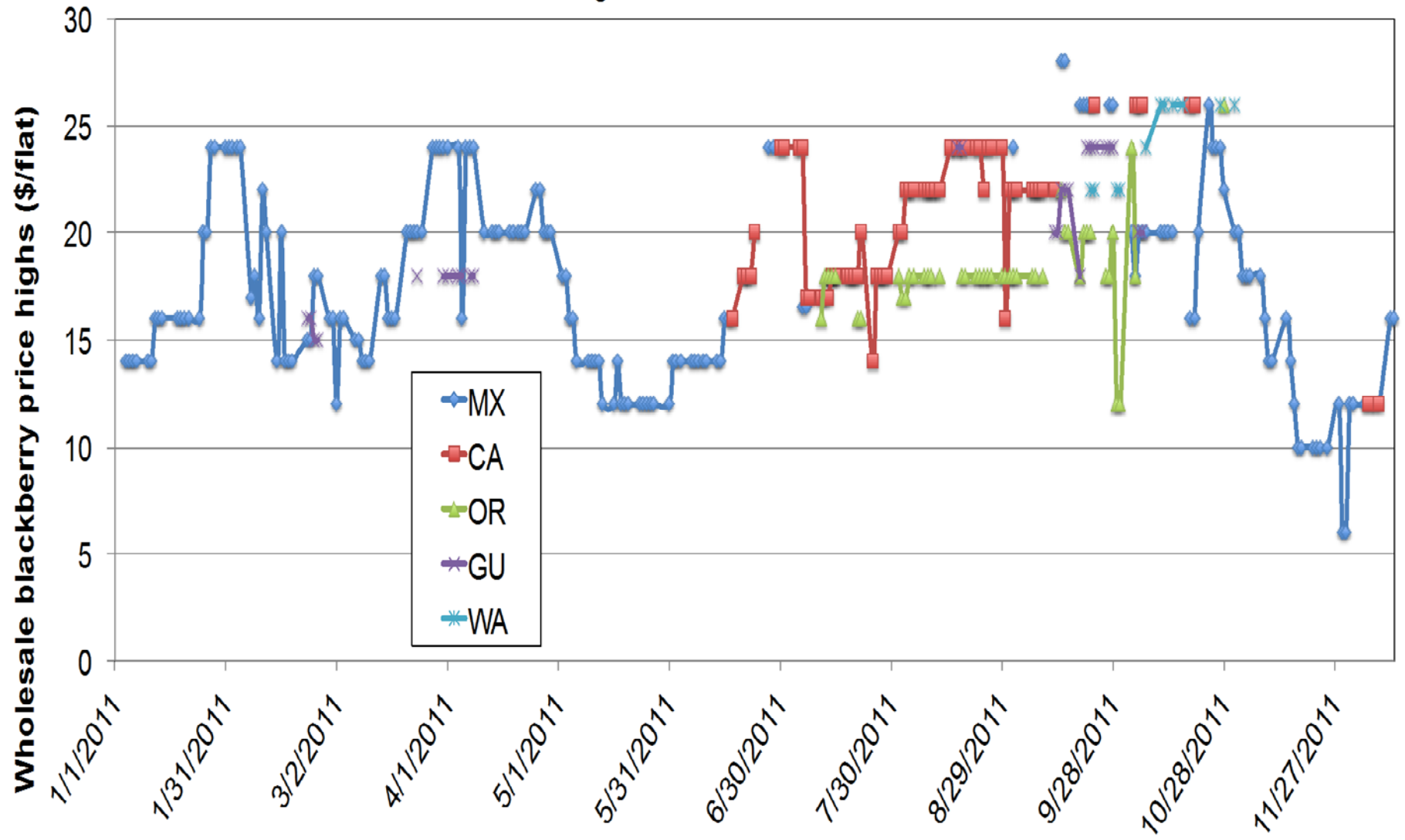
Weekly marketable yield of Primeark 45 blackberries following different mow-down times



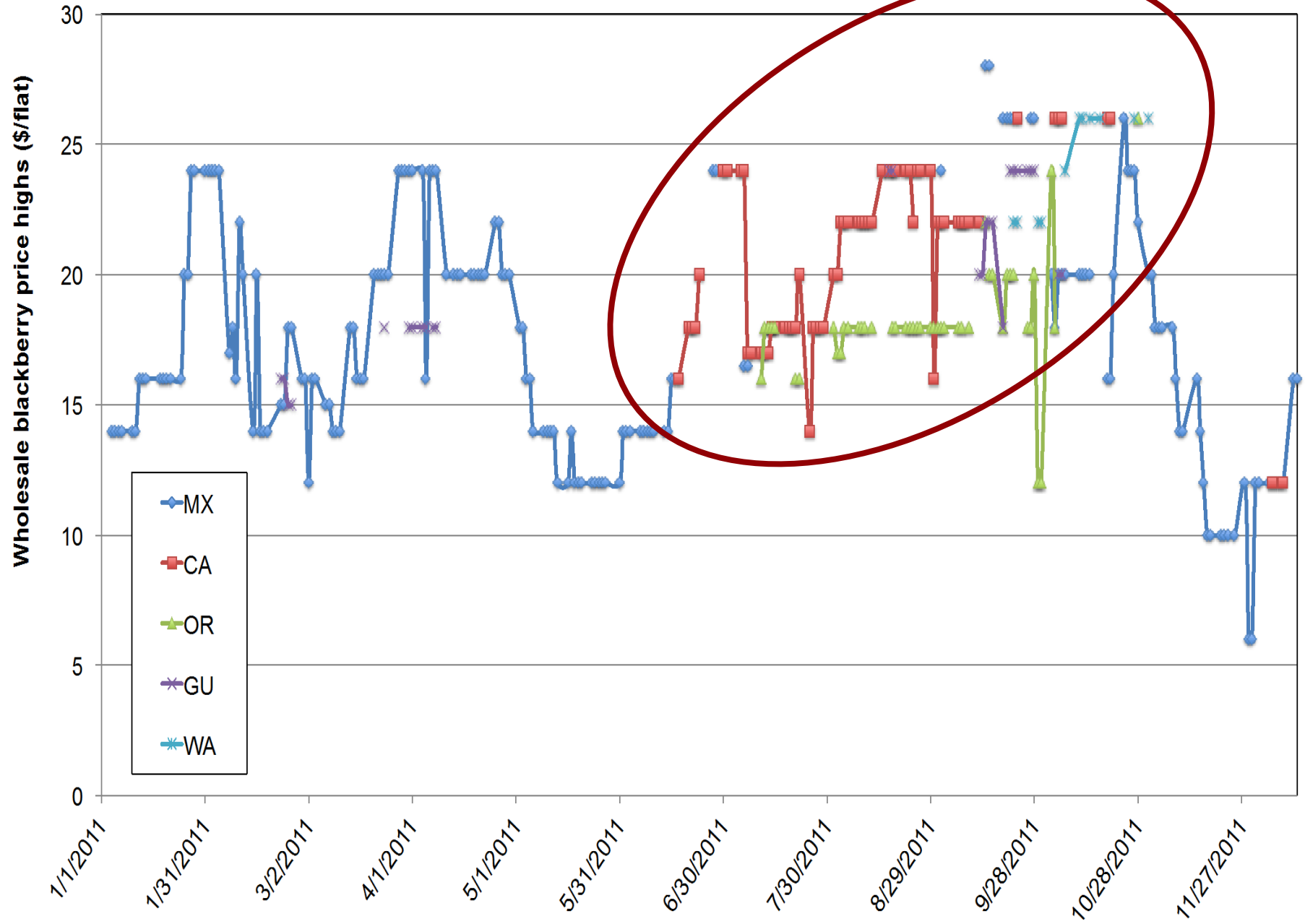
Fruit weight of Primeark 45 blackberries following different mow-down dates



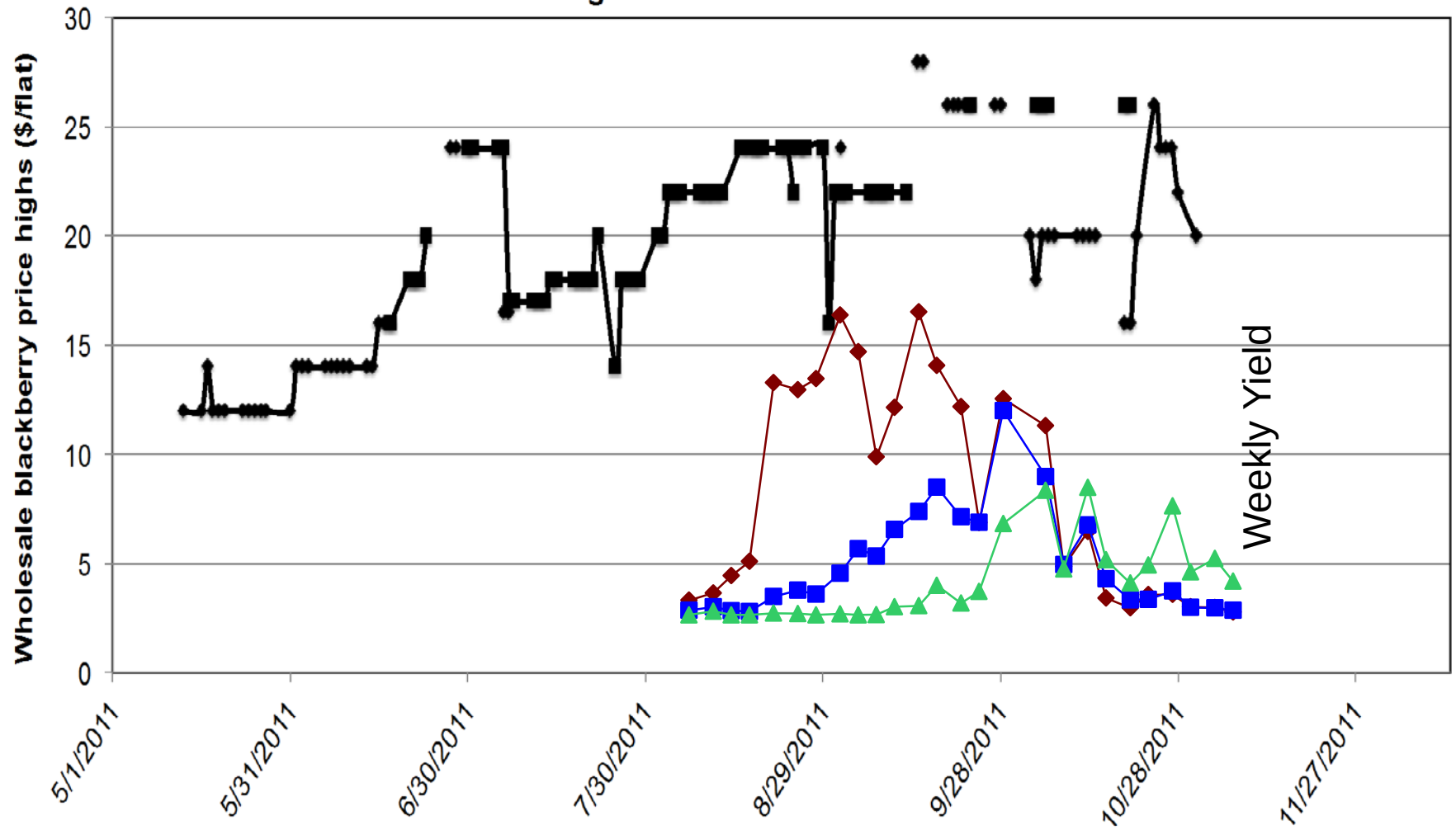
Weekly Fresh Blackberry Wholesale Prices (highs)
Los Angeles Terminal Market - 2011



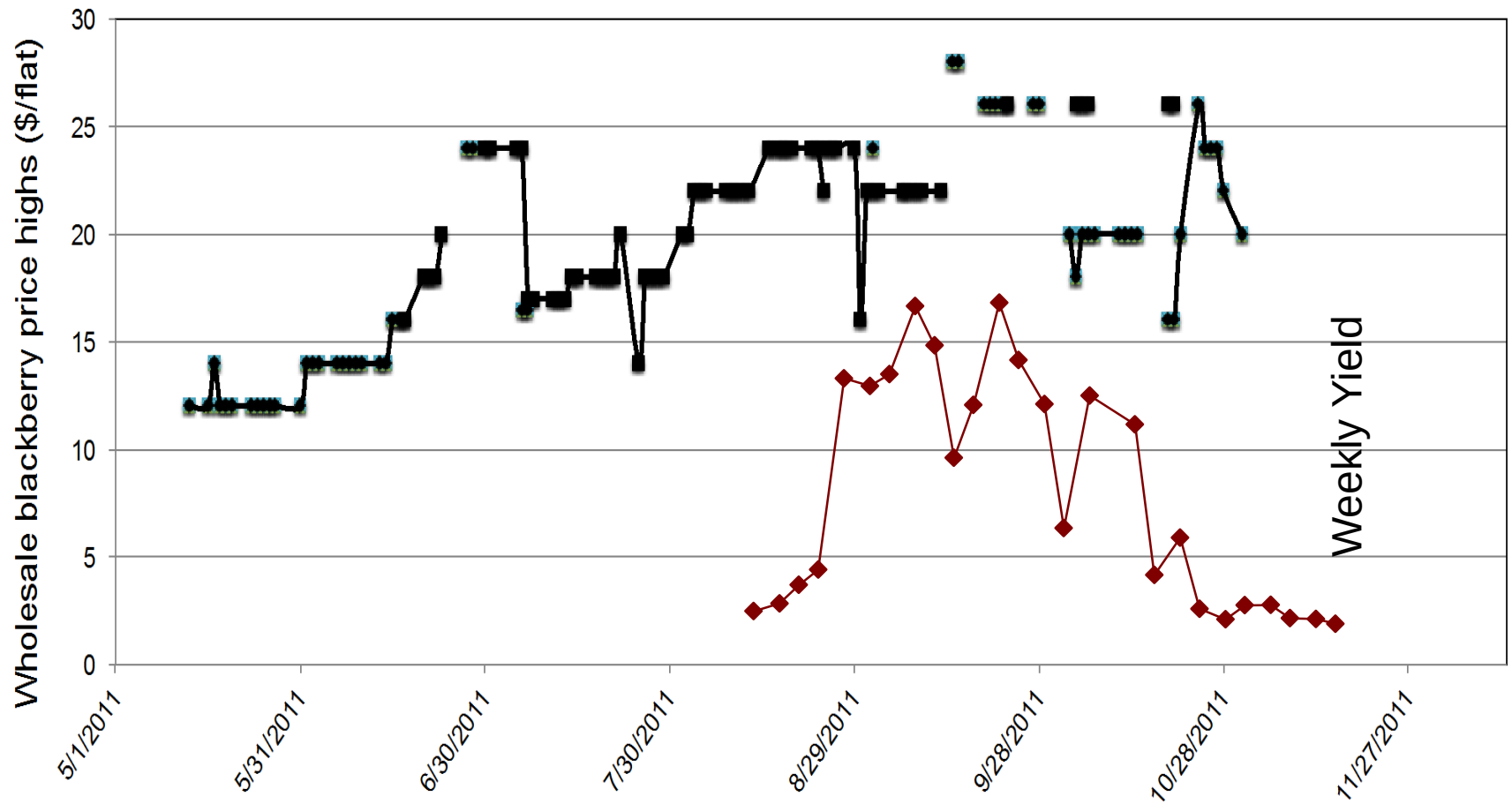
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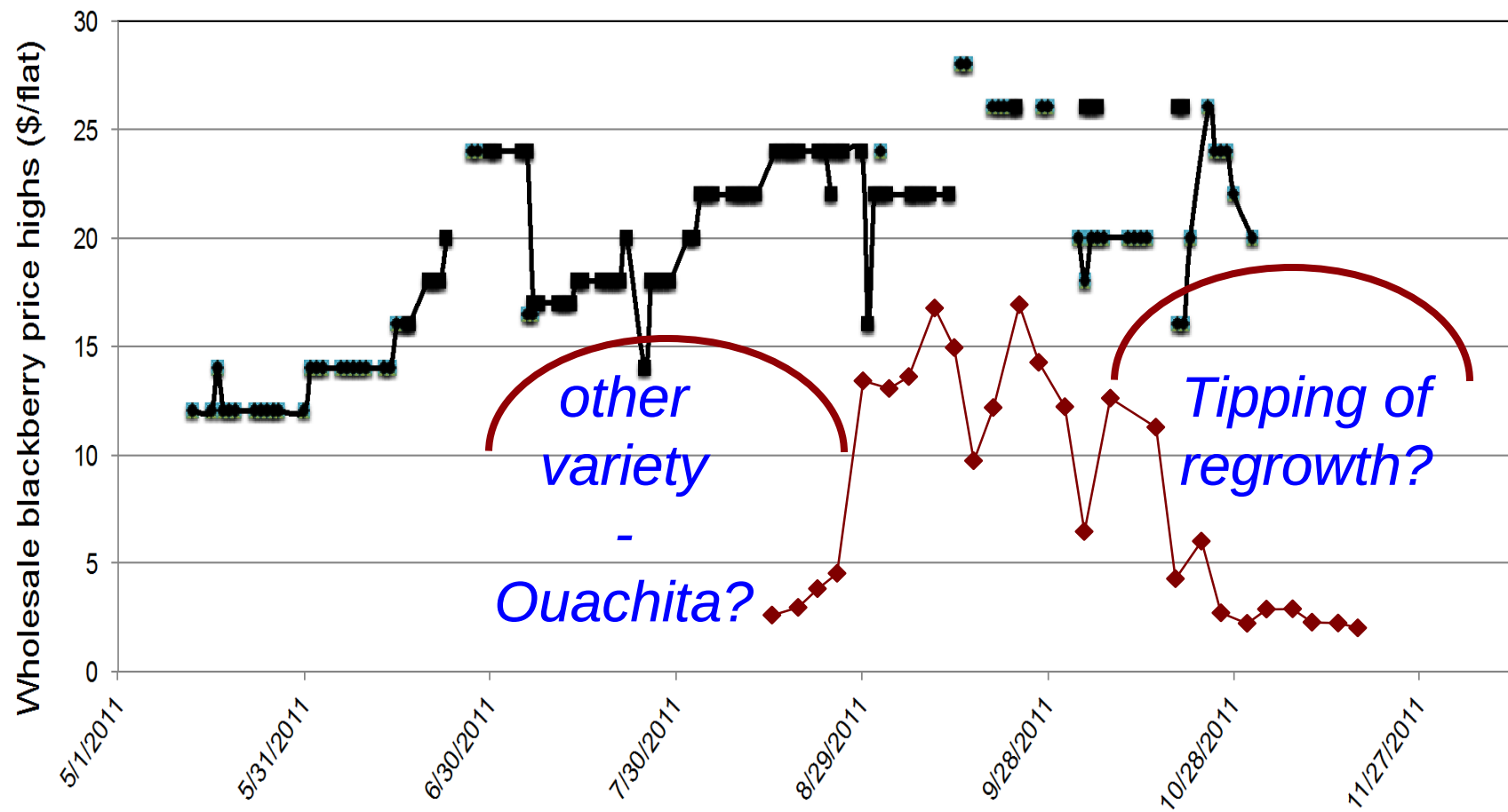
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Vegetative management

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



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