



## Reducing internal bleeding problems in processing apples in 2013...



Internal flesh bleeding on processing Romes and IdaReds has become an increasing concern of late for some northeast US apple processors.

We've certainly had some very good fruit coloring years recently in western NY- and increased internal bleeding on susceptible apple varieties *to some degree* is just an inevitable side-effect of very good fruit coloring conditions.

And it's no coincidence that some growers' processing fruit seems more prone to internal bleeding problems- just as it's not a coincidence that some growers' fresh fruit colors better than others...

Fortunately there is a range of *tried and proven* steps to reduce internal bleeding tendencies in processing apple blocks. *What can YOU do to reduce the risk of internal bleeding in your blocks ?*

- **Problem strains of processing IdaRed or Rome ?** - If you unfortunately have some good bad-coloring strains of *processing* Romes and IdaReds which typically tend to bleed- either push them out or plan on taking *multiple steps* to reduce internal bleeding in these problem processing blocks...
- **Site/soil effects** - Internal bleeding is often worse on "good-coloring" sites- such as sandier soils. These sites with a tendency to bleed may require multiple steps to effect a solution.
- **Harvest timing** - Obviously harvesting problem blocks earlier will reduce the incidence of bleeding- but there are some red Rome strains which can begin bleeding way back in Mac season. In the worst blocks, use Retain PGR to delay fruit maturity/coloring *and* plan on picking these blocks first as well.
- **Crop processing Romes and IdaReds VERY heavily(= at least 1,500-plus bu/acre)-** Heavier crops of IdaRed and Rome will both color less and bleed less as well. All you need to produce is fruit 2.5"-plus diameter and larger to get paid the top price for processing apples- so why shoot for moderate crops(= 800-1,000 bu/acre) of 3"-plus fruit? **Using a Vitazyme biostimulant program and increasing pre-bloom nitrogen levels have been field-proven to improve return bloom, fruit set and yields.**
- **Consider increasing nitrogen(N) use levels-** Higher N levels will both increase fruit set and delay fruit color development- both of which will also reduce the risk of internal bleeding issues.
  - Fruitgrowers who applied higher N rates in 2010-2012 - *especially with post-bloom soil applications of calcium nitrate(@ 200+ lbs/acre)- clearly experienced fewer bleeding issues.*
  - Calcium nitrate(15-0-0-19 N-P-K-Ca) is the ideal choice for post-bloom sidedressing programs- both due to its readily available nitrate nitrogen source and its fast-acting calcium as well.
  - Use of post-bloom foliar 20-20-20 or feed-grade urea sprays can also help to delay fruit coloring.
  - Obviously fireblight risk in your blocks would have to enter into decisions to supply additional N.
- **Use Retain PGR to delay fruit maturity and the onset of internal flesh bleeding-** especially in your historical problem blocks. No this is not inexpensive- *especially on processing apples-* but it more than pays its way if it keeps loads from being juiced. Apply 0.5 - 0.73 lbs of Retain PGR per acre on the EARLY side (= 28-plus days pre-harvest) where bleeding is a historical concern. Retain use will also significantly reduce fruit drop- *which was a problem in some blocks of Rome and IdaRed in 2010-* and improve fruit storage quality as well. Retain is an excellent tool for managing harvest when you have heavy crop loads of late-season processing varieties.
- ***Predicting internal bleeding risk on apples ??*** Unfortunately we seldom know in advance which harvest seasons growers will face increased issues with internal bleeding- so it remains a coin toss in terms of just how much preventative effort you should expend to avoid losses in each orchard...

agr.tips are provided to explore general concepts in orchard crop production. Remember to consult the specific recommendations prescribed for your farm or call to further discuss crop management options.