

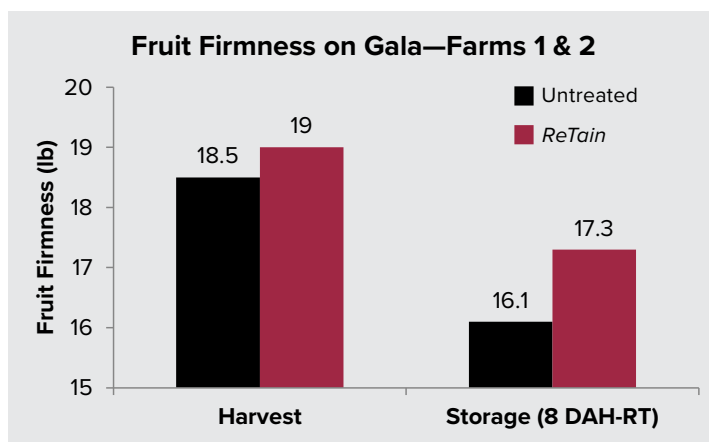
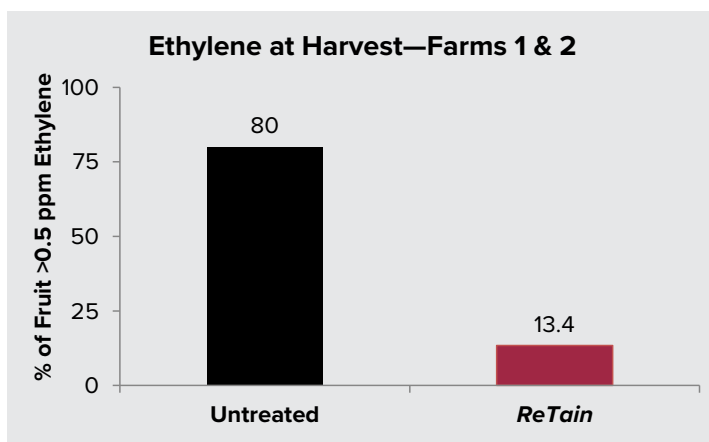
Managing Variable Fruit Maturity and Quality with ReTain[®] Plant Growth Regulator

Variable fruit maturity leads to multiple picks and poor storage quality for many apple varieties. Growers need a product that can be stored in good condition, so they can meet consumer demands months after the harvest comes out of storage. ReTain[®] Plant Growth Regulator Soluble Powder slows the fruit's maturation and ripening processes to minimize fruit drop and maximize marketable yield. *ReTain* offers tremendous flexibility allowing applications up to 28 days before expected harvest. But for some hard-to-color varieties, such as Gala and Honeycrisp, an application 7 days before expected harvest may be the best solution.

- ▶ Creates more even ripening (starch conversion) by controlling ethylene
- ▶ Delays maturation
- ▶ Extends the harvest window and provides more flexible labor management
- ▶ Delivers better quality going into storage with 1-MCP products

Improve Fruit Quality and Full Color Development

ReTain was applied to Honeycrisp apples 7 days before harvest and the result was even color throughout the block. Research has also shown that double applications of *ReTain*, when timed correctly, have been shown to be effective in multiple picks without impacting color. *ReTain* won't make red fruit green. Photo taken on September 14, five days after application. Location: Western, NY.



ReTain applied 7 days before a normal harvest stopped ethylene production and held fruit firmness—providing a powerful harvest management tool and higher returns with better quality fruit coming out of the orchard.

- 1st pick of *ReTain*-treated fruit occurred 13-days following 1st harvest of untreated fruit
- *ReTain* rate = 333 grams/A
- DAH-RT = Days After Harvest-Room Temperature

How To Use

Rate	1–2 pouches/A <ul style="list-style-type: none"> • Packaging: water soluble pouch (50 grams AI/333 grams water soluble bag)
Method	<ul style="list-style-type: none"> • Water volume: 100 gal/A or enough volume for adequate coverage without excessive runoff • Apply to healthy orchards. Do not apply to trees that may be nutrient, drought or pest stressed.
Surfactant	<ul style="list-style-type: none"> • For optimal response, use an organosilicone surfactant at a concentration of 0.05–0.1% (v/v) to improve uptake • The use of an organosilicone surfactant is especially critical for drop-prone varieties
PHI / REI	7 days / 12 hours

ReTain Pre-Harvest Flexible Use Timing

Single Pick Harvest	Apply 1–2 <i>ReTain</i> pouches per acre, 21–28 days prior to the anticipated start of normal harvest <ul style="list-style-type: none"> • <i>ReTain</i> applied 21–28 days before harvest will delay the harvest period up to 7–10 days
Multiple Pick Harvest	To improve the fruit quality and storage potential of later picked apples (2nd, 3rd, 4th picks), apply 1 pouch of <i>ReTain</i> per acre, 7–14 days prior to the anticipated start of normal harvest period <ul style="list-style-type: none"> • <i>ReTain</i> applied 7–14 days before harvest typically will not delay the start of the harvest (1st pick) but will help maintain fruit quality in the later picks

Application Timing



ReTain Use Considerations and Best Practices

- ▶ Apply under slow drying conditions and cool fruit temperatures (early morning, late evening)
- ▶ Maintain solution pH between 6 and 8
- ▶ Do not apply if rain is expected within 8 hours of application
- ▶ Do not tank mix *ReTain* with sunburn products. If sunburn products are used, apply at least 3 days before or after *ReTain* application.



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