

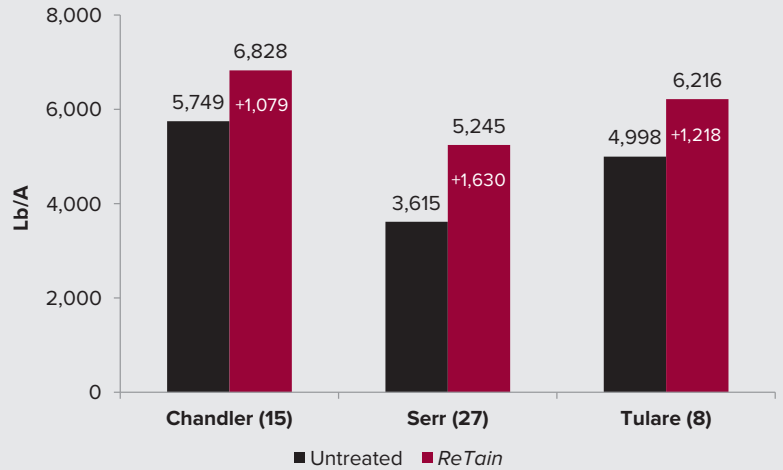
| Walnuts |

ReTain[®] Plant Growth Regulator Enhances Nut Set in Walnuts

ReTain[®] Plant Growth Regulator for California Soluble Powder consistently increases net set in walnut orchards that suffer from low nut set due to Pistillate Flower Abscission (PFA).

Trials conducted since 2003 have demonstrated that *ReTain* consistently increases net set in orchards with PFA. Applied at 5–30% bloom, a single application of *ReTain* reduces ethylene production in pistillate flowers, the main cause of PFA. This results in increased nut retention and higher yields.

ReTain Increases Yield in Multiple Walnut Cultivars



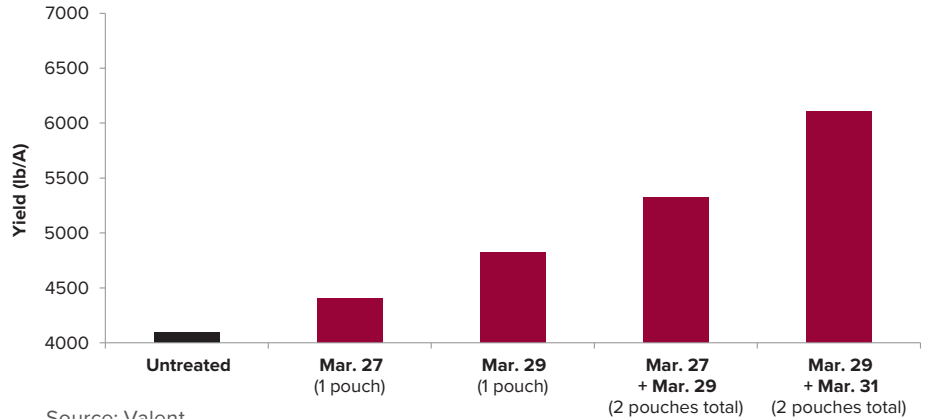
Source: Valent and University cooperators

A Second *ReTain* Application Further Protects Orchards from Severe PFA

New research shows that making a second application at 40–60% bloom (typically 2–4 days after the first application) can significantly increase yields beyond the benefits of a single application.

The following conditions most favor using a second application:

- ▶ Orchards with historically high levels of PFA
- ▶ Periods of extended bloom in high PFA orchards
- ▶ Locations within orchards with historically high incidence of PFA, such as near pollenizers



Source: Valent

How To Use

Rate	1–2 pouches per acre (11.7–23.4 oz/A)
Timing	First application at 5–30% pistillate (female flower) bloom—see other side for photos. If a second application is required, apply at 40–60% bloom.
Method	Ground or aerial application
Spray Volume	Ground: 100–200 GPA; aerial: 15 GPA minimum
Adjuvant	None

Other Important Information

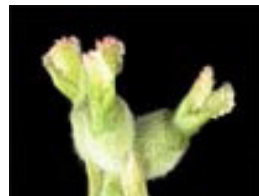
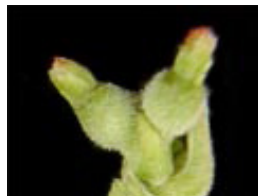
- ▶ For best results, apply when conditions favor slow drying—early morning or late afternoon
- ▶ Flower coverage is critical. To ensure thorough spray coverage of flower buds, use properly calibrated spray equipment and adjust water volume to minimize excessive runoff.
- ▶ Re-entry interval—12 hours
- ▶ Use of adjuvants with *ReTain* has not been fully researched. Some adjuvants will cause a bloom thinning effect and will reduce the benefits of *ReTain*.
- ▶ For best results, apply *ReTain* at least 48 hours before or after applying copper-based products
- ▶ Maintain spray solution pH between 6 and 8
- ▶ Signal word: Caution

ReTain Walnut Application Timing

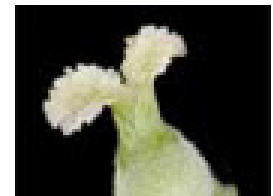


Early Flower Development

Apply first application when 5–30% of pistillate (female) flowers reach this stage*



Peak Pollen Receptivity



Late Flower Development

*Make second application, if needed, when 40–60% of pistillate flowers are at peak receptivity.

Before Using *ReTain* for Walnuts

- ▶ Be sure your problem is PFA. Signs that point to PFA include:
 - High year-to-year yield variability, yields below county average for your variety, PFA sensitive cultivar (such as Serr, Tulare and Tehama), heavily planted walnut growing region that results in high pollen loads
- ▶ Be sure female flowers are at the correct stage of bloom (see above pictures for proper timing)



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