Pistillate Flower Abortion (PFA) affects certain walnut cultivars whose female flowers produce a burst of ethylene 24 hours after an excessive number of pollen grains land on its stigma. The early maturing, and thus commercially important cultivar, Serr, is severely affected. Since its commercial registration in 2006, ReTain® (AVG) has been widely used by California walnut growers on PFA susceptible cultivars with significant economic benefits. However, growers have been challenged by correctly assessing PFA severity, proper application timing, aerial versus ground treatment, and inadequate rates due to high product cost. Research results will be presented that show yield improvements range from zero to two-fold, depending upon the cultivar, PFA level, and application method. Recent studies show improved response with two applications versus one. Product cost has now made half label rate applications common. A field trial in 2012 suggests AVG efficacy is affected by both active ingredient and concentration.