ETHEPHON IN HAZELNUTS

OVERVIEW

To better understand the use potential, Pratum research conducted a preharvest foliar ethephon trial in 2023.

- Ethephon is a plant growth regulator
- Applied on September 8th as a foliar application
- Found a significant correlation between use rate, kernel fall, and leaf drop

SUMMARY

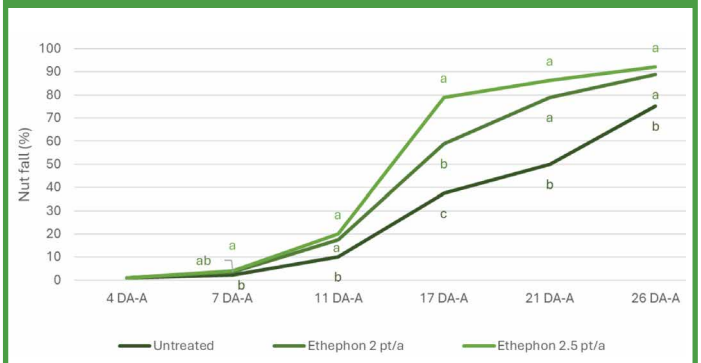
In a nutshell, the higher the concentration of ethephon used, the quicker both the leaves and the kernels drop. This is useful if trying to harvest prior to a rain event although the long-term impacts of high use rates and early leaf and kernel abscission on sugar storage and crop vigor in hazelnuts has yet to be understood.

Ethephon is a plant growth regulator used in hazelnut production preharvest to quicken nut fall and enhance fall uniformity. It does this through promoting the formation of abscission layers (both for leaves and kernels) within the plant. This product is registered for use in Oregon hazelnut production, although it is not widely used.

To better understand the use potential, Pratum research conducted a preharvest foliar ethephon trial in 2023. Applied on September 8th as a foliar application, we found a significant correlation between use rate, kernel fall, and leaf drop. As rates increased, kernel and leaf abscission increased.

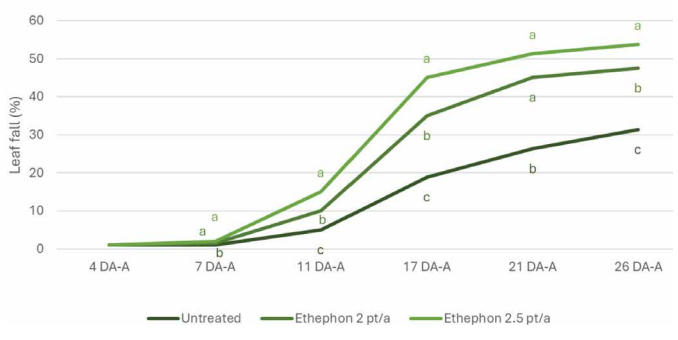
Seventeen days after the application trees treated with 2.5 pt/a of ethephon were at 80% kernel fall and 45% leaf drop while trees treated with 2.0 were at 59% and 35% respectively. Compared to the untreated, ethephon enhanced early nut fall by 20-40% and increased leaf drop by 15-25%.

NUT FALL AFTER TREATMENT



P Value = 0.05

LEAF FALL AFTER TREATMENT



P Value = 0.05