

Determining Pecan Growth of Post-Plant Insecticides Drenched on 1st-Year Trees



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Figure 1. Treatments were randomized and replicated four times. The Wilcox County plots are Lakota's.



Figure 2. Jeff Davis County Agent Jennifer Miller applies insecticide by drench.

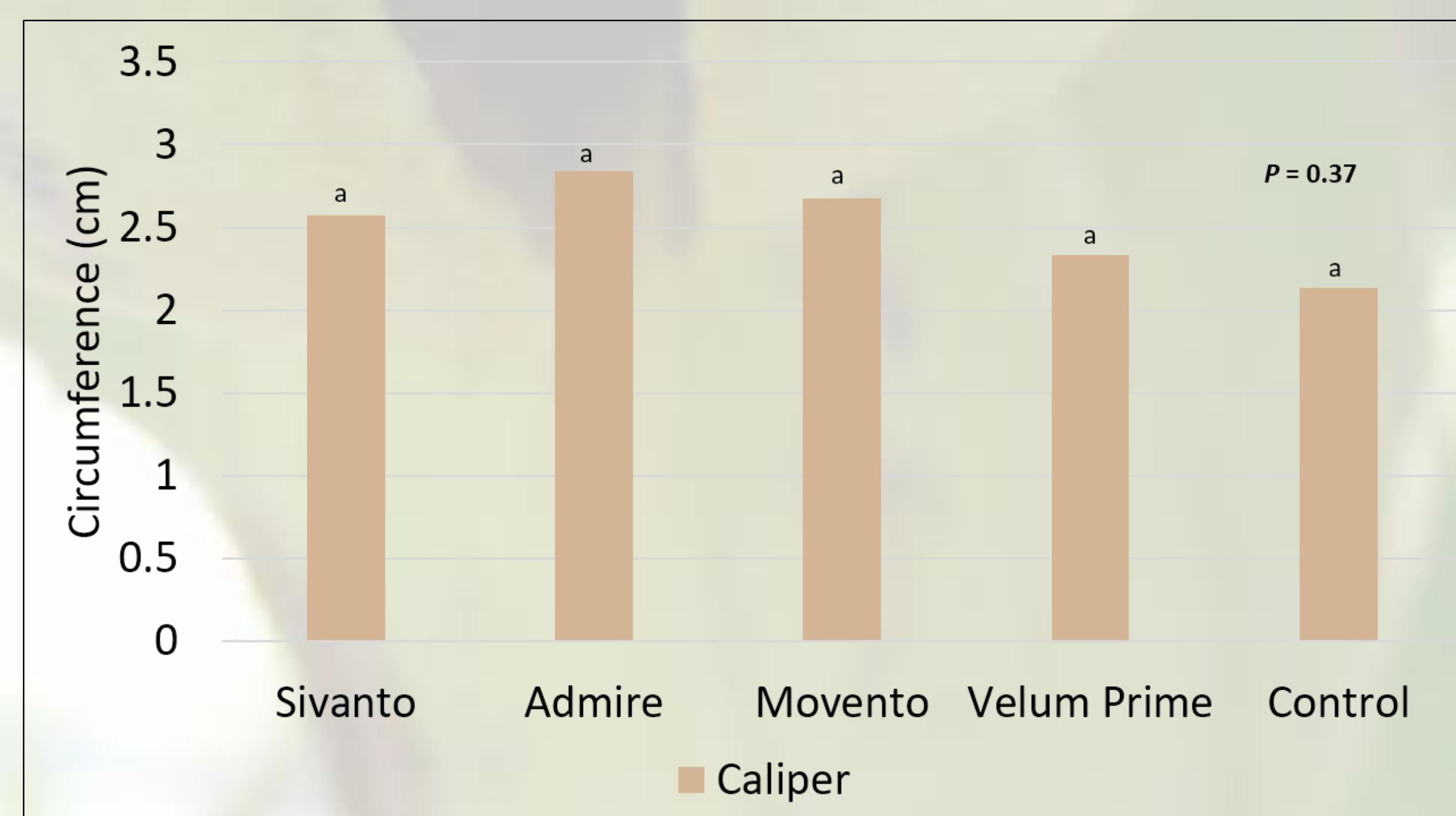
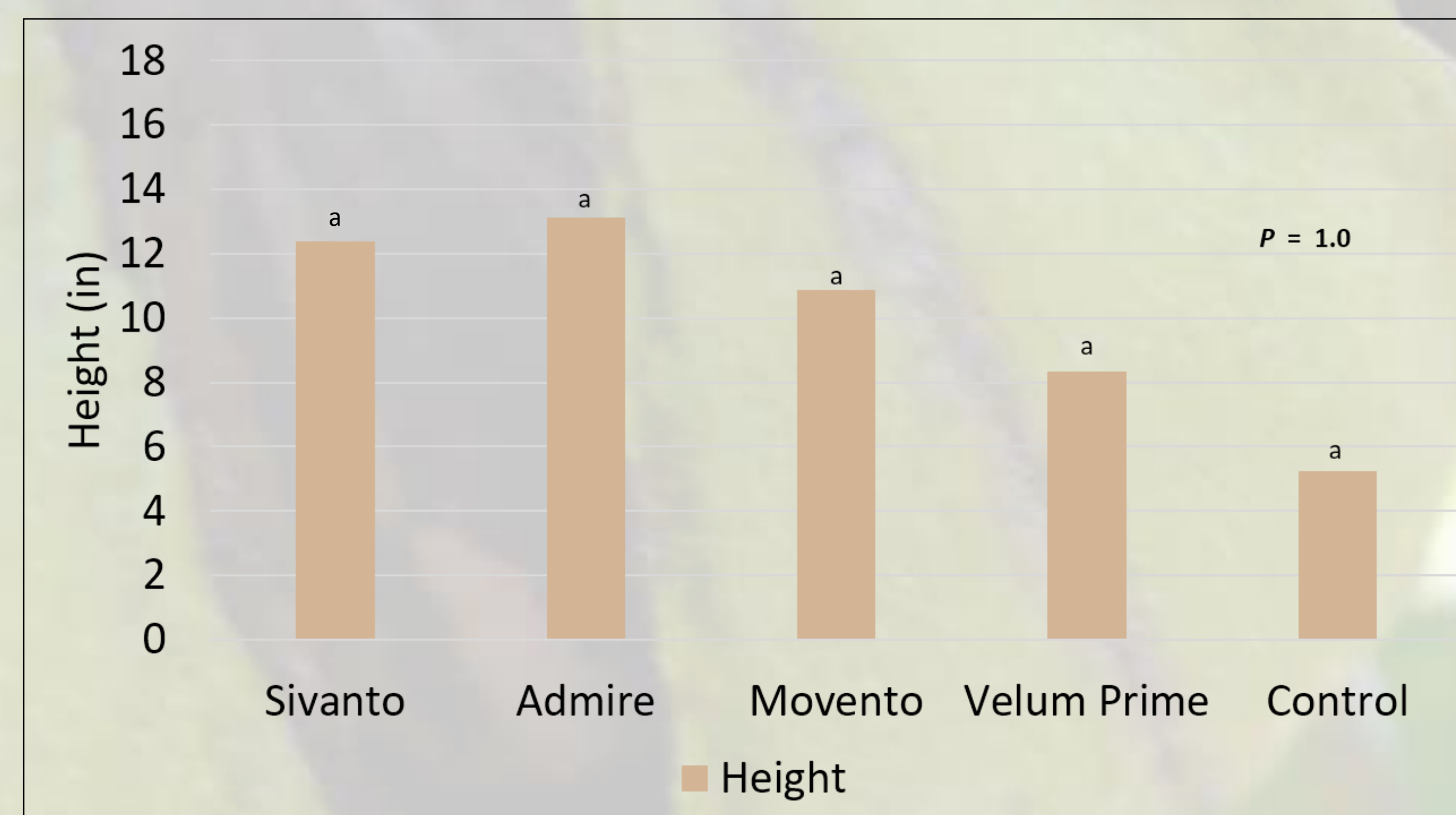


Figure 3. Wilcox County Agent John Bennett measures caliper on trees.

Results:

In this trial, pecan tree growth was the only parameter measured. Data was determined using the Sigma Plot Systat Software. Though numerical difference was observed, no treatments were statistically different from another in the first season of growth. There was no difference in both height and caliper of all trees in this plot.

Wilcox County 1st Year



Objective:

Though Hurricane Michael has forced Georgia pecan producers to re-plant significant acres in southwest Georgia, southeast and northeast Georgia are also planting new acreage in pecan due to lower prices in forestry, livestock and hay agriculture. Newly planted pecan trees are under significant stress factors from bare-root planting to early pests. Products which increase the growth of the trees aid in the survival rate and early production of nuts. Both new insecticide products on the market and older products recently labeled for pecans may provide benefit in growth of young trees. The purpose of this trial is to observe the effects of 4 treatments on the growth of newly planted pecan trees.

Materials and Methods:

In Wilcox County, GA, imidacloprid (Admire), flupyradifurone (Sivanto) and fluopyram (Velum Prime) were drenched on a row of Lakota pecan trees three months after transplanting (Figure 2). These compounds were drenched at the base of each tree in two gallons of water. Spirotetramat (Movento) was foliar applied once per tree with a backpack sprayer. Each rate per acre was as follows: Admire – 14 oz, Movento – 9 oz, Sivanto – 2 oz, and Velum Prime – 6.8 oz. Each treatment was randomized and subsequently replicated four times. Caliper measurements (Figure 3) were taken four feet from the ground at the beginning and end of the growing season. Height measurements were taken from the base of the tree to the highest terminal at the beginning and end of the growing season.

Conclusions:

Though no statistical height and caliper difference of growth was found this year, this may be due to only one year of data collected. Pecan trees exhibit significant stress in their first year of growth. Trees essentially spend the first four years growing roots. To fully determine growth impact of these products, height and caliper data should be taken in the next two years. Additionally, this trial was replicated in Tattnall County and Toombs County, Georgia. Data from these replicated later trials will be observed next year.

