

## Anthracnose Suppression with Mauget Micro-Infusion Fungicides



### ArborFos™ and Tebuject™ 16 Provide Control During Two-Year Period of High Disease Pressure

#### Research Facility & Trial Location

Researchers Terry Tattar Ph.D. and Arnold Farran evaluated the micro-infusion of a 46% phosphite formulation (Mauget ArborFos™) and a triazole fungicide (Mauget Tebuject™ 16) for the control of anthracnose disease on sycamore trees in southern California.

#### Objectives

The study assessed the effectiveness of two trunk-injected fungicides to control anthracnose over a two-year time period.

#### Materials & Methods

Sycamore trees located on the University of San Diego campus were assigned to one of five treatment groups: ArborFos in 10 ml capsules at 5.0 ml/inch DBH (diameter at breast height), ArborFos in a liquid loadable delivery system at 7.5 ml/inch DBH, Tebuject 16 in 6 ml capsules at 3 ml/inch DBH, Tebuject 16 in a liquid loadable delivery system at 7.5 ml/inch DBH, or untreated control. Trees were micro-infused in the spring, and foliage condition was recorded in the summer.

A set of campus trees were treated (micro-infused) in the spring with the foliage conditions recorded in the summer and again in the summer of the following year.

In another experiment, half of the same sets of campus trees were given a fall treatment as well as the initial spring treatment in the same year. The foliage conditions were rated in the summer of the treatment year and again the following year.



## Findings

### Effective Control of Anthracnose in First Season

Trees treated once with ArborFos or Tebuject 16 demonstrated substantial improvement in foliar disease ratings after one growing season (Figure 1). ArborFos was the most effective with up to 57% improvement from time of injection. The foliar condition rating of untreated trees approached 8.0 (with 10 being dead), while Mauget-treated trees ranged from 2.9 to less than 5.0.

### One Injection of ArborFos Effective for Second Season

After two growing seasons, trees given one infusion of ArborFos exhibited substantial improvement in foliar disease ratings, indicating a carryover into the second year (Figure 2). Disease symptoms of trees that received one treatment of ArborFos at either the low or high rate remained minimal for a second season, with 44% and 68% improvement in foliar conditions reported, respectively. Tebuject 16 at the 7.5 ml/inch DBH rate also provided anthracnose disease protection, but was slightly less effective than ArborFos. The foliage of untreated trees substantially worsened during the two growing seasons.

### Two Injections Control Disease in Following Year

Trees given a spring and fall treatment of ArborFos or Tebuject 16 had low disease ratings in the following year (Figure 3). The foliar condition of untreated trees approached 8.5 (with 10 being dead), while Mauget-treated trees ranged from approximately 2.5 to less than 5.0. The higher volume rate of Tebuject 16 appeared to be superior than the lower rate of the fungicide.

## Conclusions

During this trial period, anthracnose disease on sycamores reached record severity in southern California, and the foliage condition of untreated trees continued to worsen throughout the course of the study. Results showed that Mauget ArborFos and Tebuject 16 were effective at controlling sycamore anthracnose during a two-season period of high disease pressure. A single treatment of ArborFos provided anthracnose disease protection for two growing seasons. Further testing is needed to refine regional timing and rates.

For more information or the full report of this study, call **800-TREES-Rx (800-873-3779)** or visit **www.mauget.com**.

**J.J. Mauget Co.**

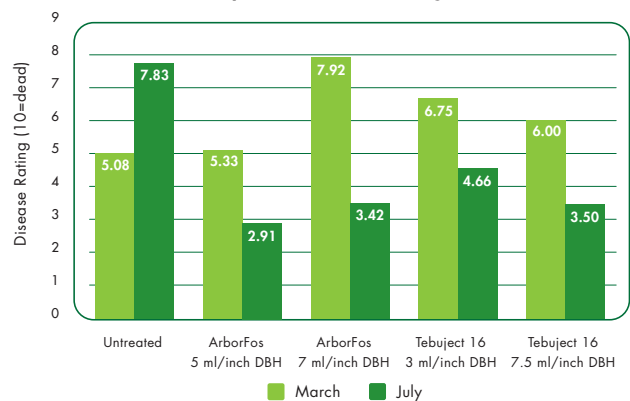
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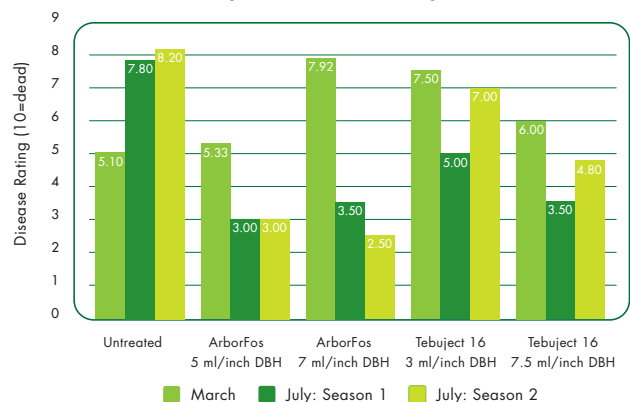
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**Figure 1**  
One Injection, One Growing Season



**Figure 2**  
One Injection, Two Growing Seasons



**Figure 3**  
Two Injections, Two Growing Seasons

