



# Efficacy of Huma Gro® Proud 3® on Alternaria Leaf Spot

## Research Report

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### Objective

This study aims to assess the efficacy of Huma Gro® Proud 3® on Alternaria leaf spot infecting the ornamental plant Rudbeckia (*Rudbeckia fulgida* cv. Goldstrum). Alternaria leaf spot is a fungal disease that causes small black spots that grow into large lesions with characteristic concentric rings on leaves, stems, and heads.

### Materials and Methods

Transplants of Rudbeckia were planted on June 3 at Clarksville Horticultural Research Farm, Michigan State University, and situated in rows 12 in. apart within single rows and 36 in. apart between rows. Plants were treated with Proud 3® at a rate of 4 qt/100 gal applied weekly from July 3 until July 31 using a hand-held calibrated spray boom (80 psi). The treatments (Proud 3® and untreated control) were replicated four times and each plot consisted of 10 plants for a total of 40 plants. The percentage of the Alternaria leaf spot disease was recorded after transplanting the plant, and the relative area under the disease progress curve (RAUDPC—a quantitative summary of disease intensity over time) was calculated from the day of appearance of initial symptoms.



### Results

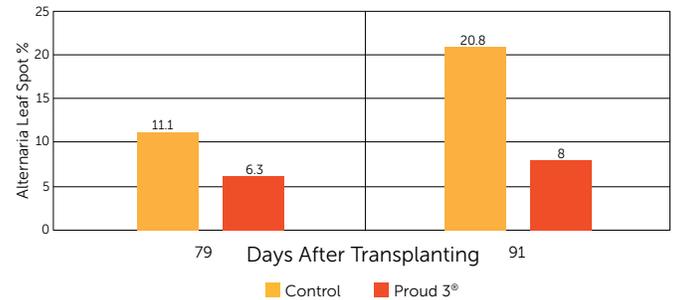


Figure 1. Alternaria leaf spot percentage

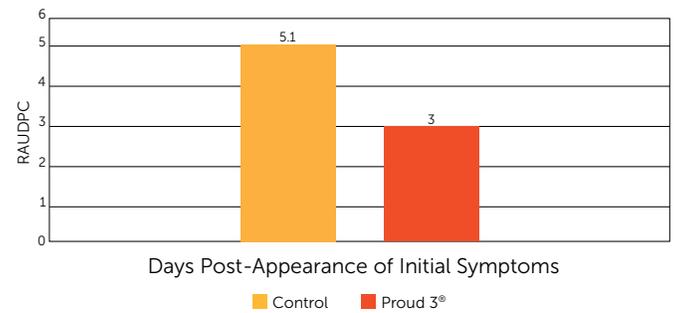


Figure 2. Relative area under disease progress curve (RAUDPC)

### Conclusions

Plants treated with the Huma Gro® Proud3® had significantly less Alternaria leaf spot than the untreated control.

HUMA GRO® PROUD 3® is an organic-listed crop protection product. It is a safe and effective, foliar-applied insecticide, miticide, and fungicide. The mode of action is as a contact killer. As an insecticide, it works best on soft-bodied insects or on the juveniles.

