

Evaluating Fungicide Efficacy on Areolate Mildew in Georgia

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Introduction

With Areolate mildew spreading across the cotton belt, there are concerns if it may be impacting yield. UGA Plant Disease estimates Areolate Mildew is the cause of \$1.3 to \$10 Million economic losses from 2020 to 2022. On farm research has been initiated in Colquitt County to evaluate fungicide efficacy on areolate mildew. Until 2023, azoxystrobin has always reduced defoliation. The concern now is that growers may not be able to protect their crop using azoxystrobin to manage areolate mildew.

Materials and Methods

In 2023 and 2024, two on-farm fungicide trials were conducted in Colquitt County. The varieties planted in 2023 and 2024 was Dynagro 3799 and DPL 2333, respectfully. Plots were 18 rows wide and ran the length of the field. Each fungicide treatment is listed in the table below. Each treatment was replicated 3 times and applied with the grower's sprayer.

Applications started at the 3rd week and defoliation ratings were taken. Yield data was taken at harvest.

Fungicide	Active Ingredient	Rate oz/A
Untreated		
Abound	Azoxystrobin	6 oz
Abound + Drexel Sulffa	Azoxystrobin + sulfur	6 oz + 58 oz (2024)
Miravis Top	Difenoconazole + pydiflumetofen	13.7 oz
Revytek	pyraclostrobin + fluxapyroxad + mefentrifluconazole	10 oz (2023)

Conclusion

In 2023, azoxystrobin was no different in canopy defoliation compared to the untreated check. There was no significant differences in yield among treatments

In 2024, canopy defoliation was rated at 33 and 44 days after treatment (DAT) Suffa tank mix with azoxystrobin did decrease defoliation compared to azoxystrobin alone. There was no significant difference in yield but 80-100 lbs with the Suffa tank mix with azoxystrobin. This could explain why there was a decrease in defoliation and increase in yield with Suffa. Isolates of the *R. pseudoglycines* from the on-farm site in Colquitt County did have the gene mutation for QoI resistance.

