Update for Cotton Diseases in 2021, including the Latest on Management for Nematodes, Fusarium Wilt, Bacterial Blight, and Verticillium wilt.

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Nematicides Commercially Available

Fluopyram at 5.0 to 6.84 fl. Oz/acre in the furrow at plant.

AgLogic™ 15GG
Aldicarb Pesticide

AgLogic™ 15G
Aldicarb Pesticide

Aldicarb, 15GG is gypsum formulation and 15G is corncob formulation. Typically applied at 3.5-5 lbs/acre infurrow at planting.

Vydate® C-LV
INSECTICIDE/NEMATICIDE

Use an at-plant infurrow nematicide. Apply Vydate C-LV (oxamyl) on the foliage at 17 oz/a at 3 to 7 leaf stage. A second application can be made 14 days later.

Seed Treatment Nematicides

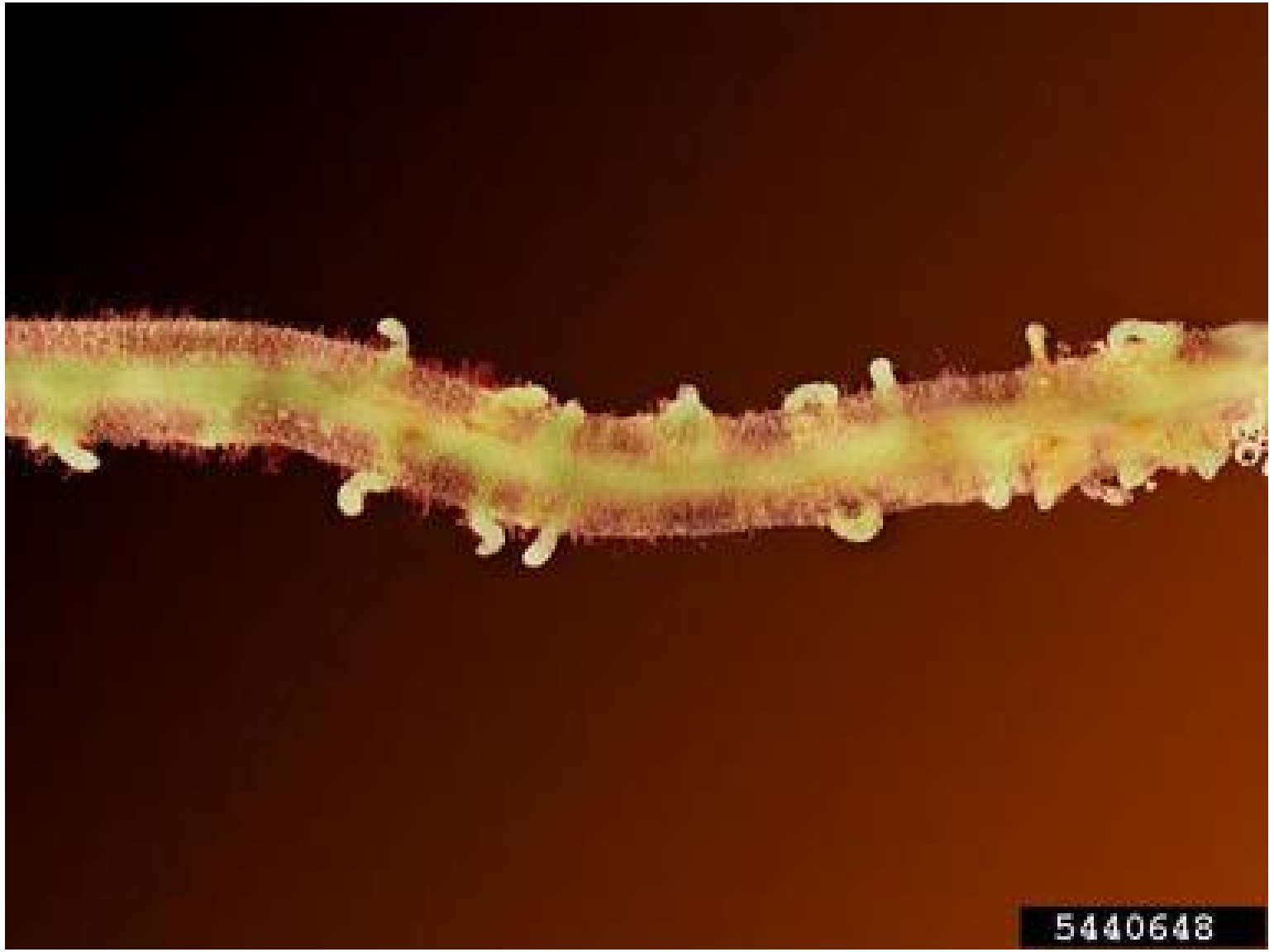
Avicta 500 FS (abamectin) Syngenta: Use 0.10 to 0.15 mg ai/seed

Aeris® (Thiodicarb + imidacloprid) Bayer Cropscience: use 0.375 mg ai/seed

Copeo® (fluopyram) BASF: use 0.2 to 0.3 mg ai/seed

BIOST® Nematicide (fermentation products from heat killed *Burkholderia rinojensis*) Albaugh LLC: use 8 oz/100 lbs seed.

Trunemco ™ (*Bacillus amyloliquefaciens* + CIS-jasmone) Nufarm Americas, Inc.: use 0.020 mg/seed.



Reniform Nematode on Tomato Root

Jonathan D. Eisenback, Virginia Polytechnic Institute and State University, Bugwood.org

Reniform Nematode Resistant Cotton Varieties

High Resistance with Dicamba tolerance

DP 2141NR B3XF

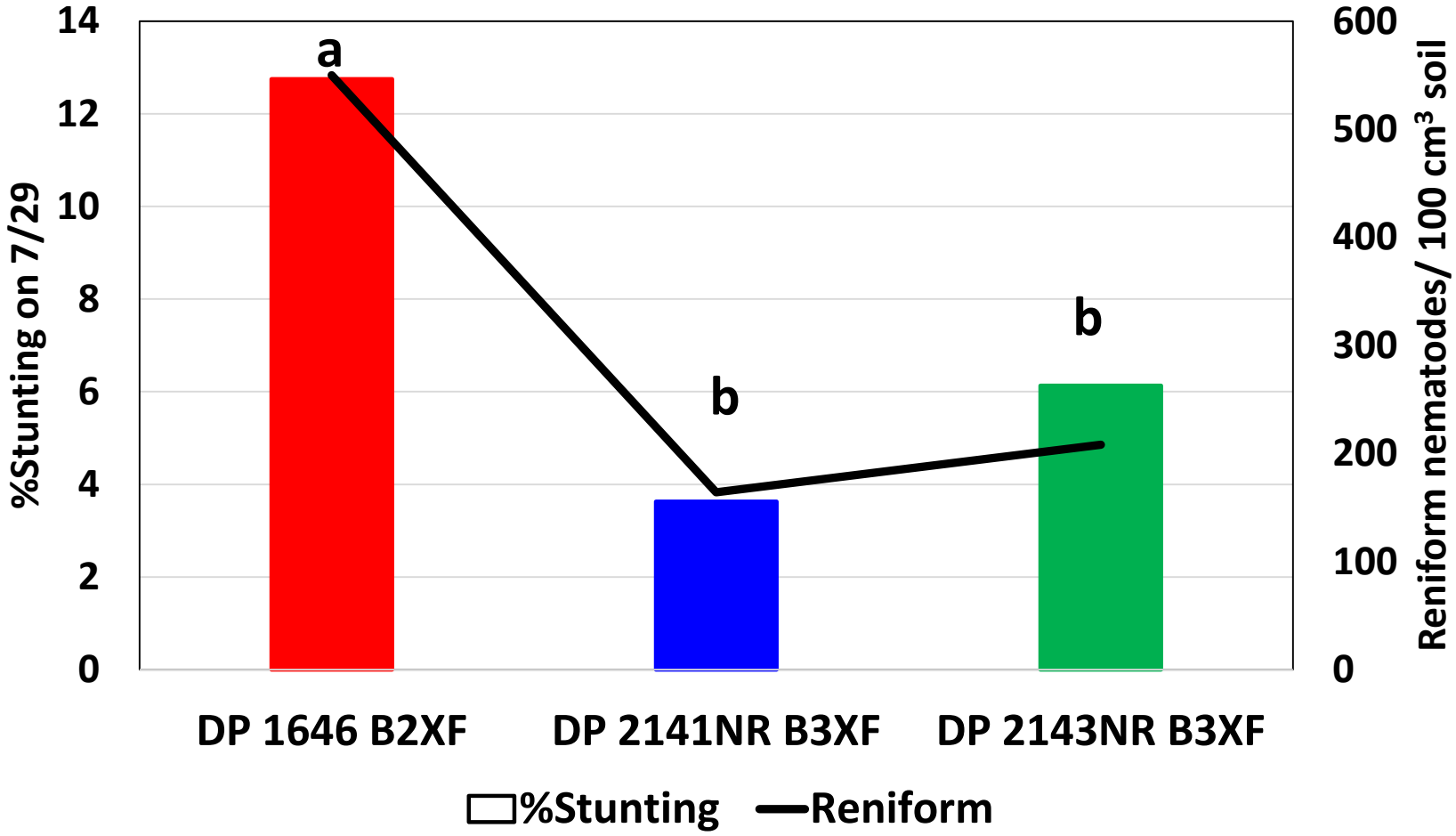
DP 2143NR B3XF

Resistance with 2,4-D tolerance

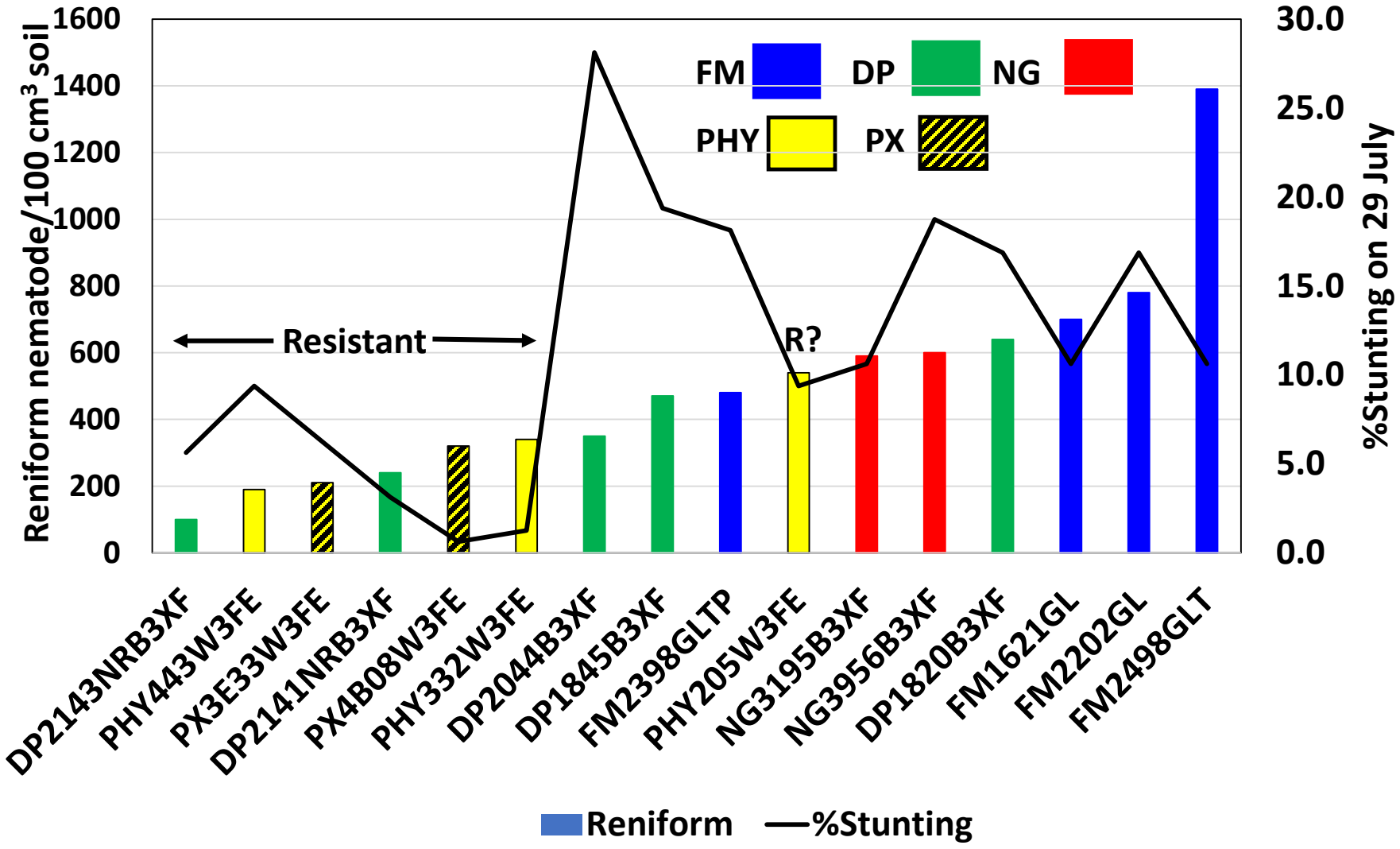
PHY 332 W3FE

PHY 443 W3FE

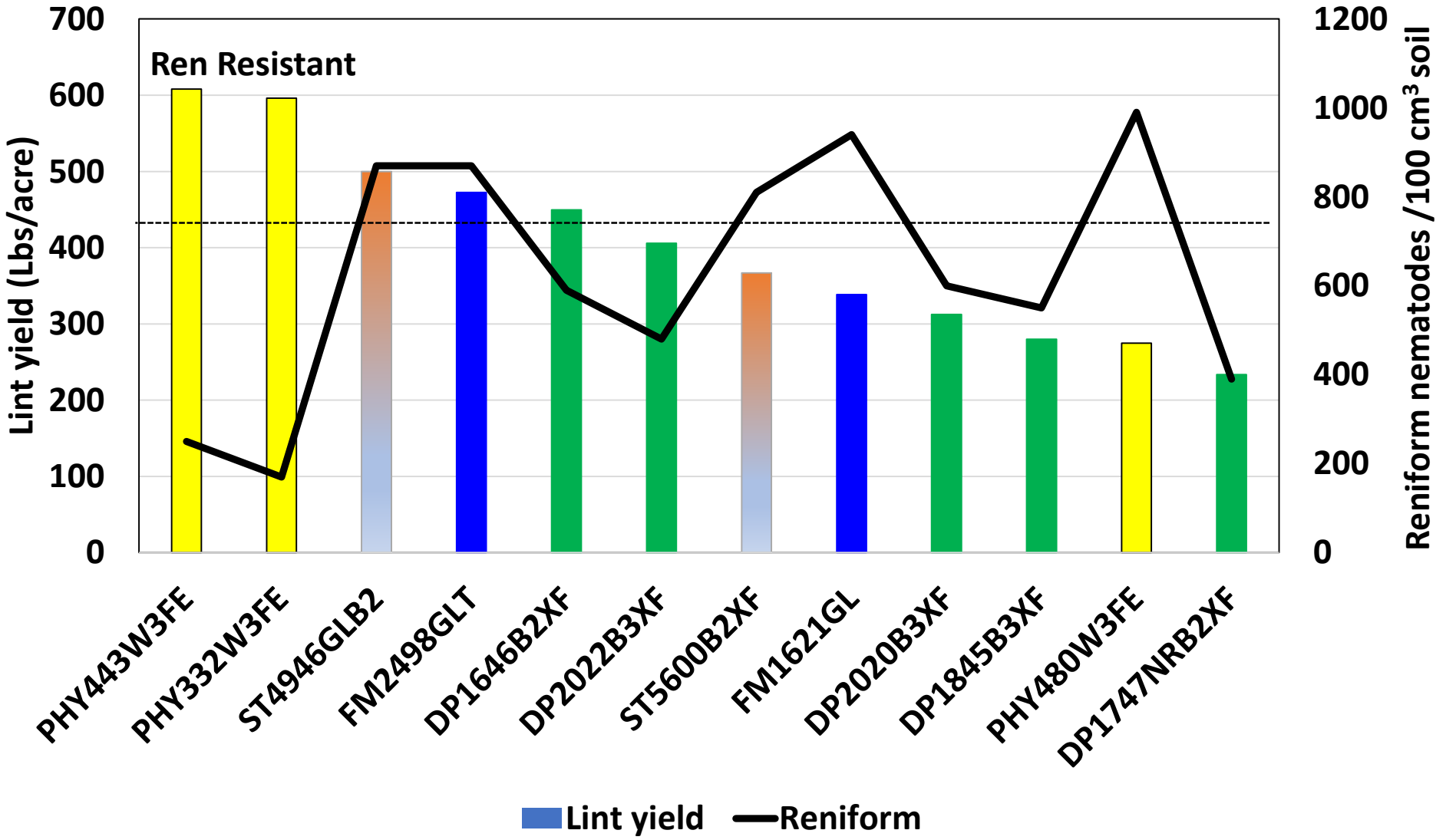
The Stunting caused by Reniform Nematode on Susceptible and Resistant Varieties, and Nematode Density at 48 days after planting.



Reniform Nematode Population Density and Stunting Associated with Resistant and Susceptible Varieties in 2021



Yield and Reniform Nematode Density from 2020 Trial at Lubbock

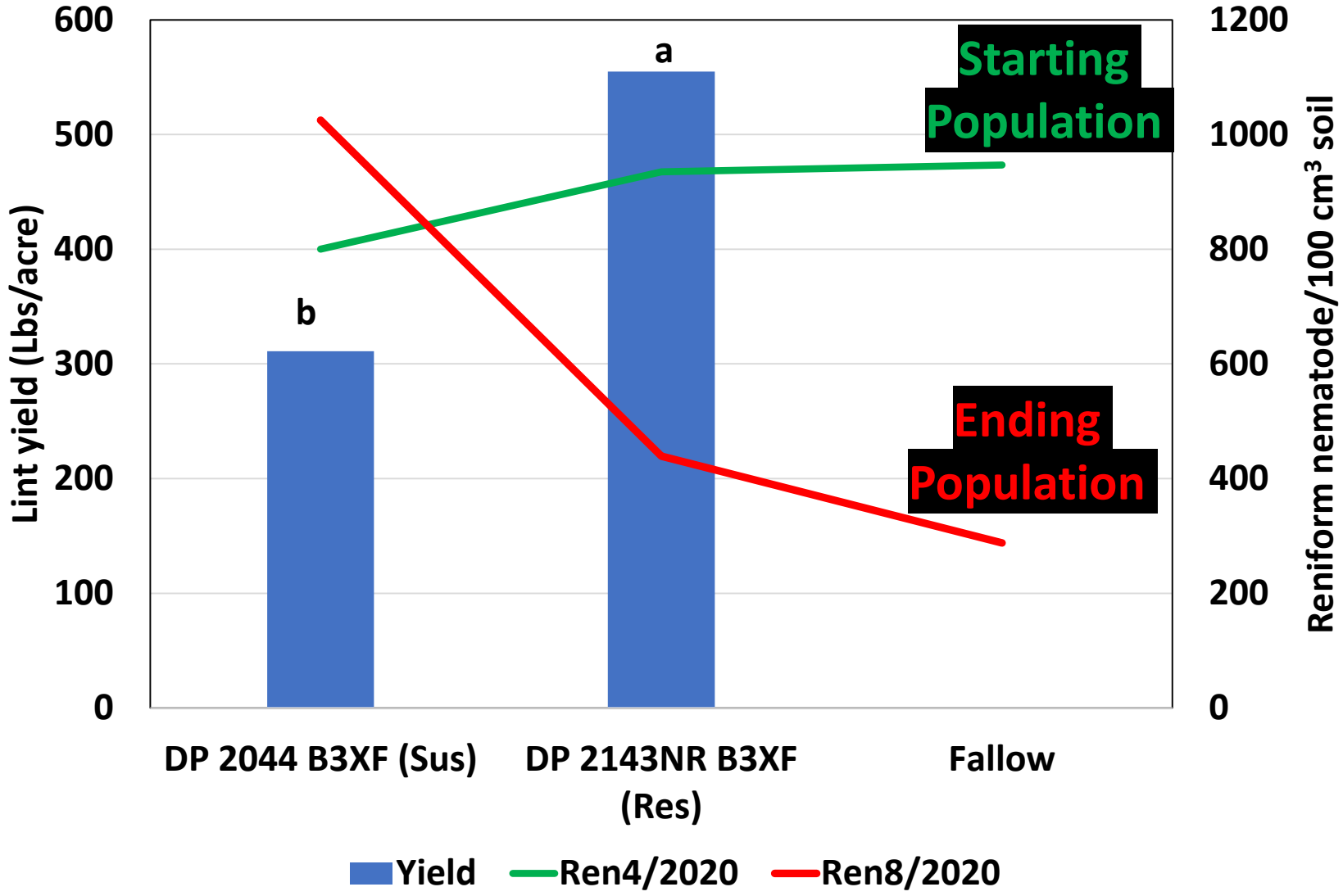


Crop Rotation with Resistant Cotton (DP 2143NR B3XF) vs. Susceptible Cotton (DP 2044 B3XF) vs. Fallow Study with Reniform Nematode

By Cecilia Monclova-Santana
Texas A&M AgriLife Extension Service

2020 Yield and Nematode Measurements (Year 1)

(Data collected by Cecilia Monclova-Santana)

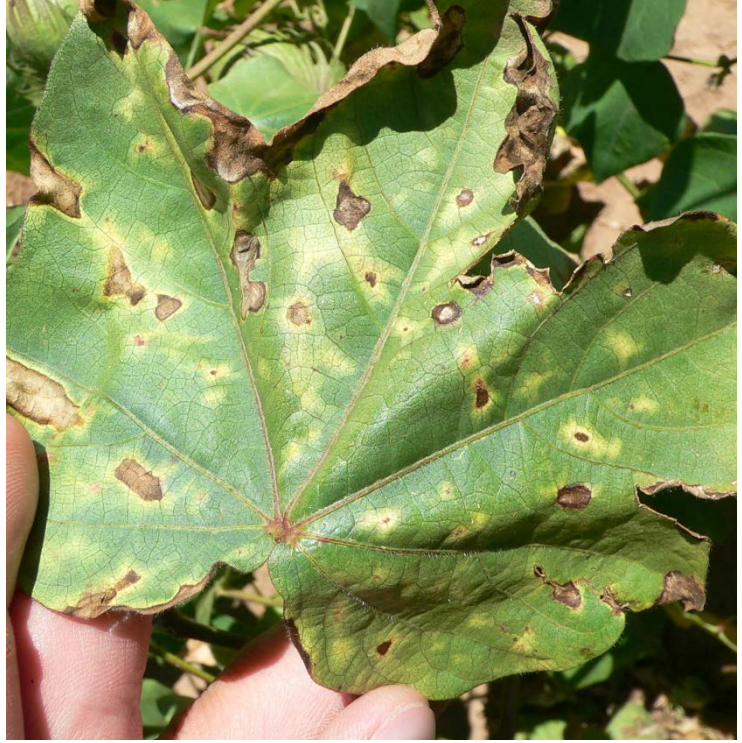


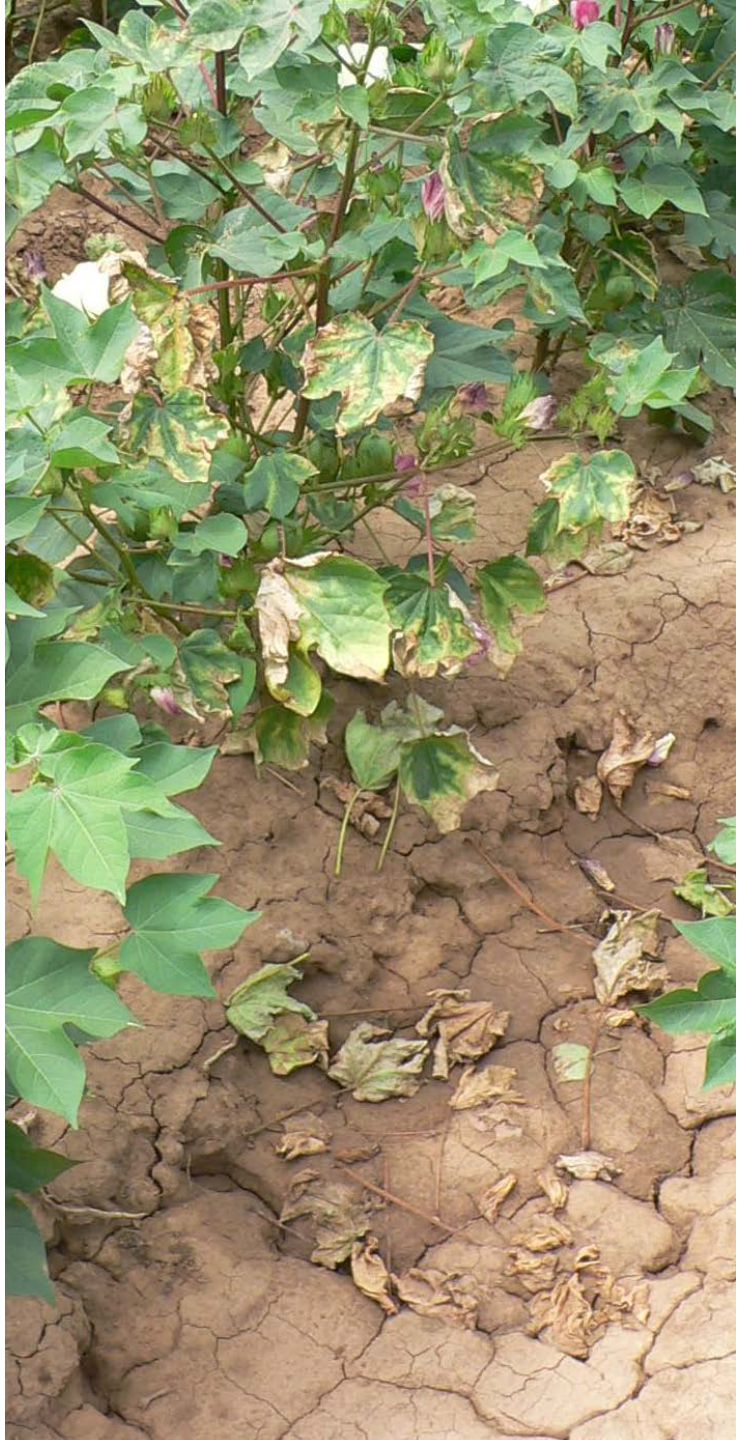
Verticillium Wilt (Verticillium dahliae)

Microsclerotia

Image taken by Shilpi Chawla

Germination and infection of roots. Must be in close proximity to roots. At some point, mycelia and conidia colonize vascular system and spread upwards.





Floydada: Verticillium Wilt Resistant versus Susceptible Variety.

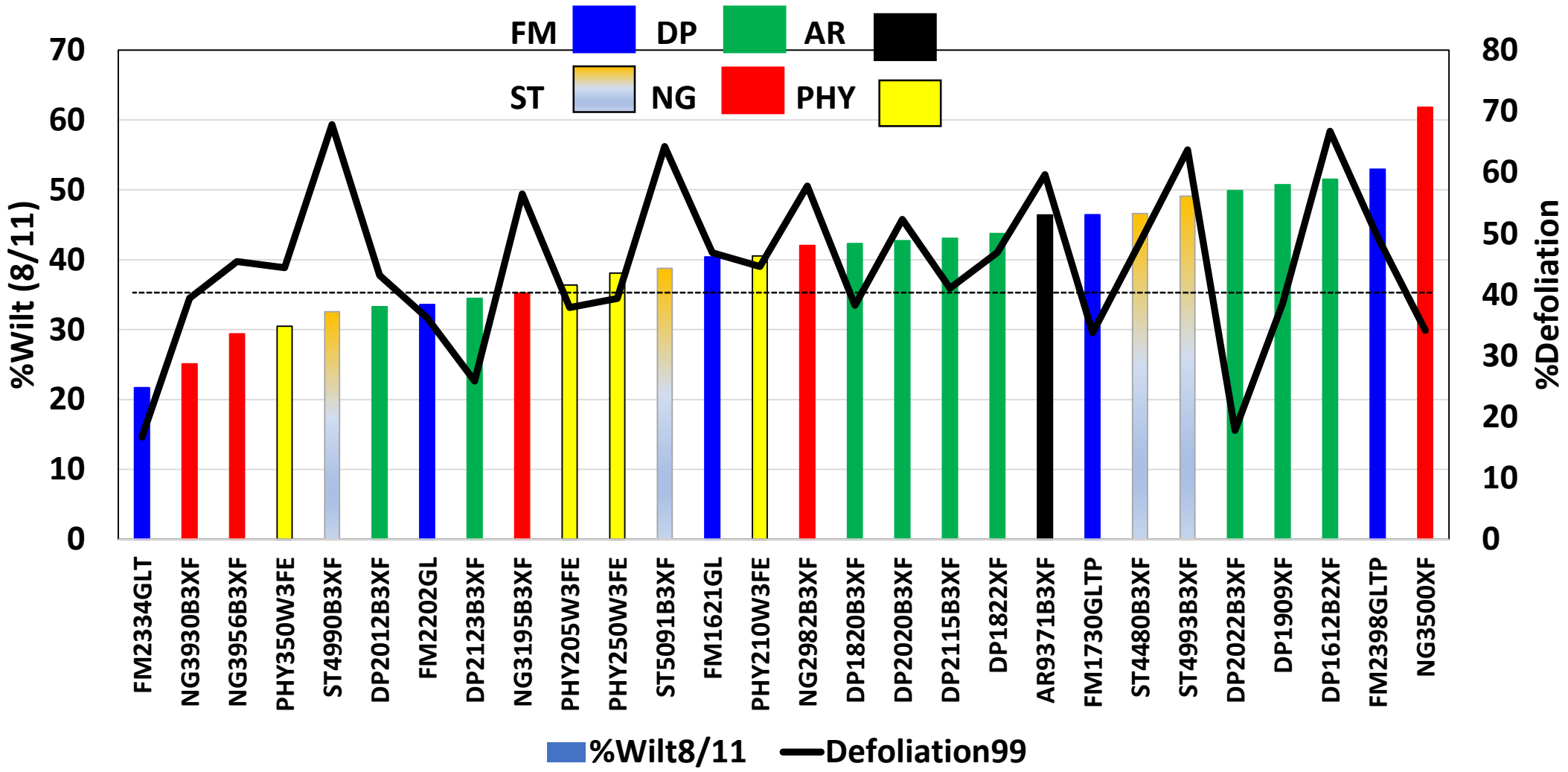
Plainview 2021

More Resistant (8/24)

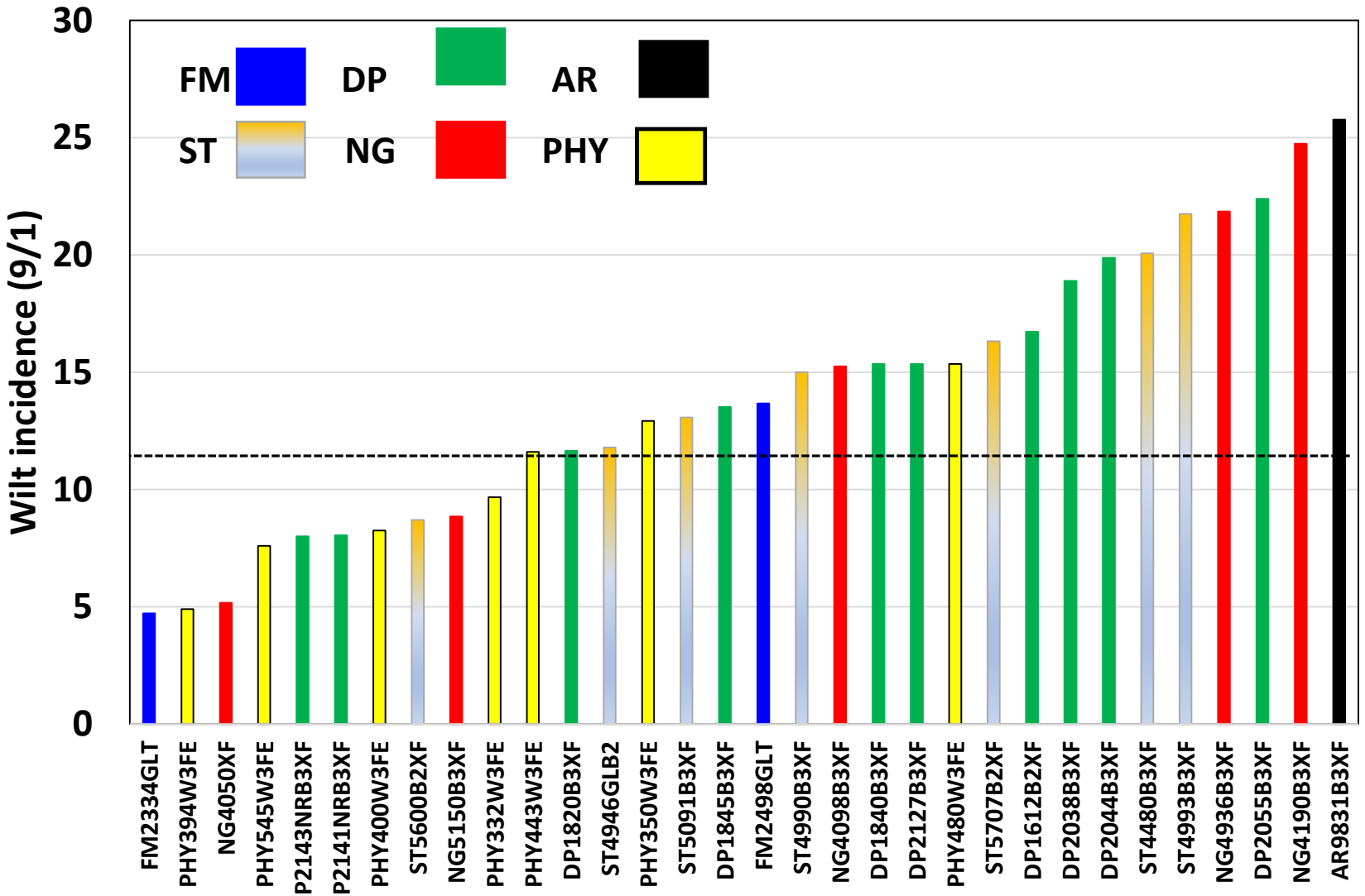
More Susceptible (8/24)


Stem Discoloration and Leaf symptom caused by
Verticillium dahliae

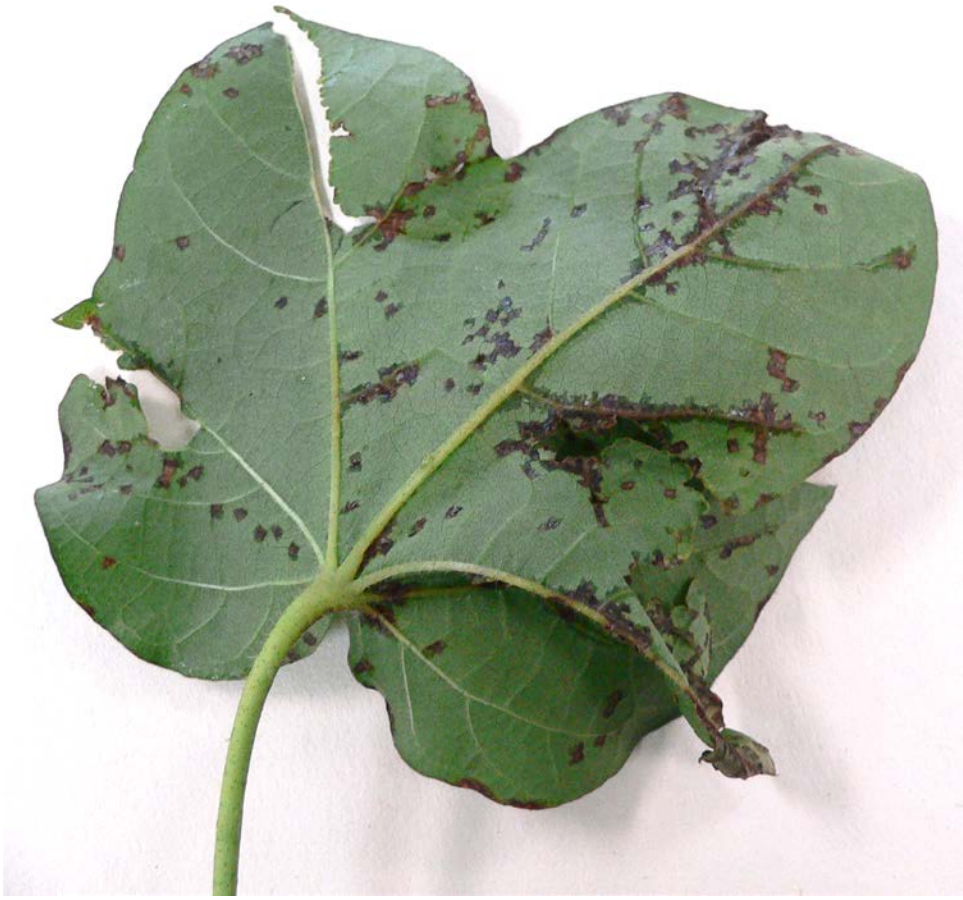
Plainview Early Wilt and Defoliation Ratings in 2021

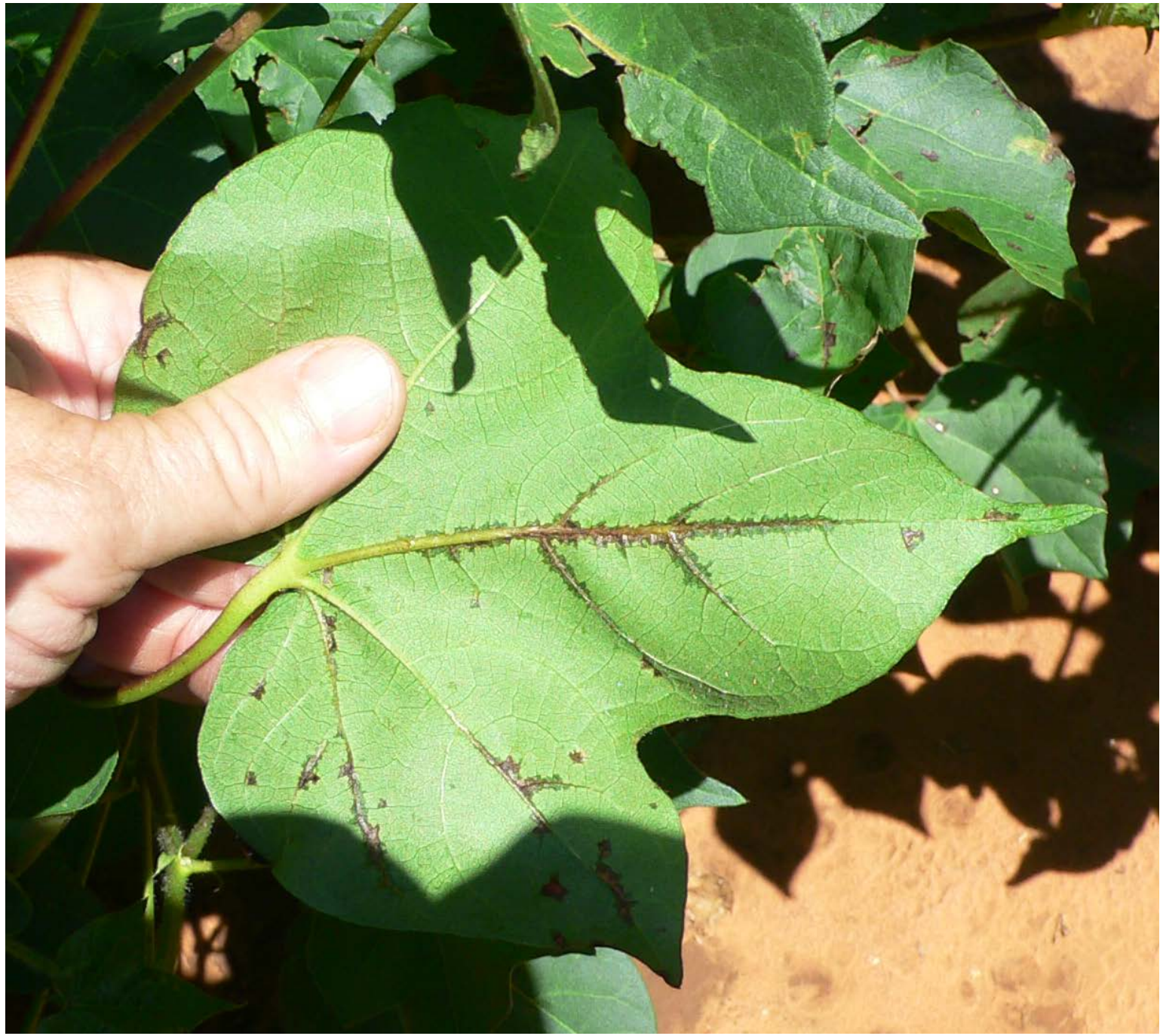


Wilt Incidence at Ropesville on 9/1 in a Drip Irrigation Field

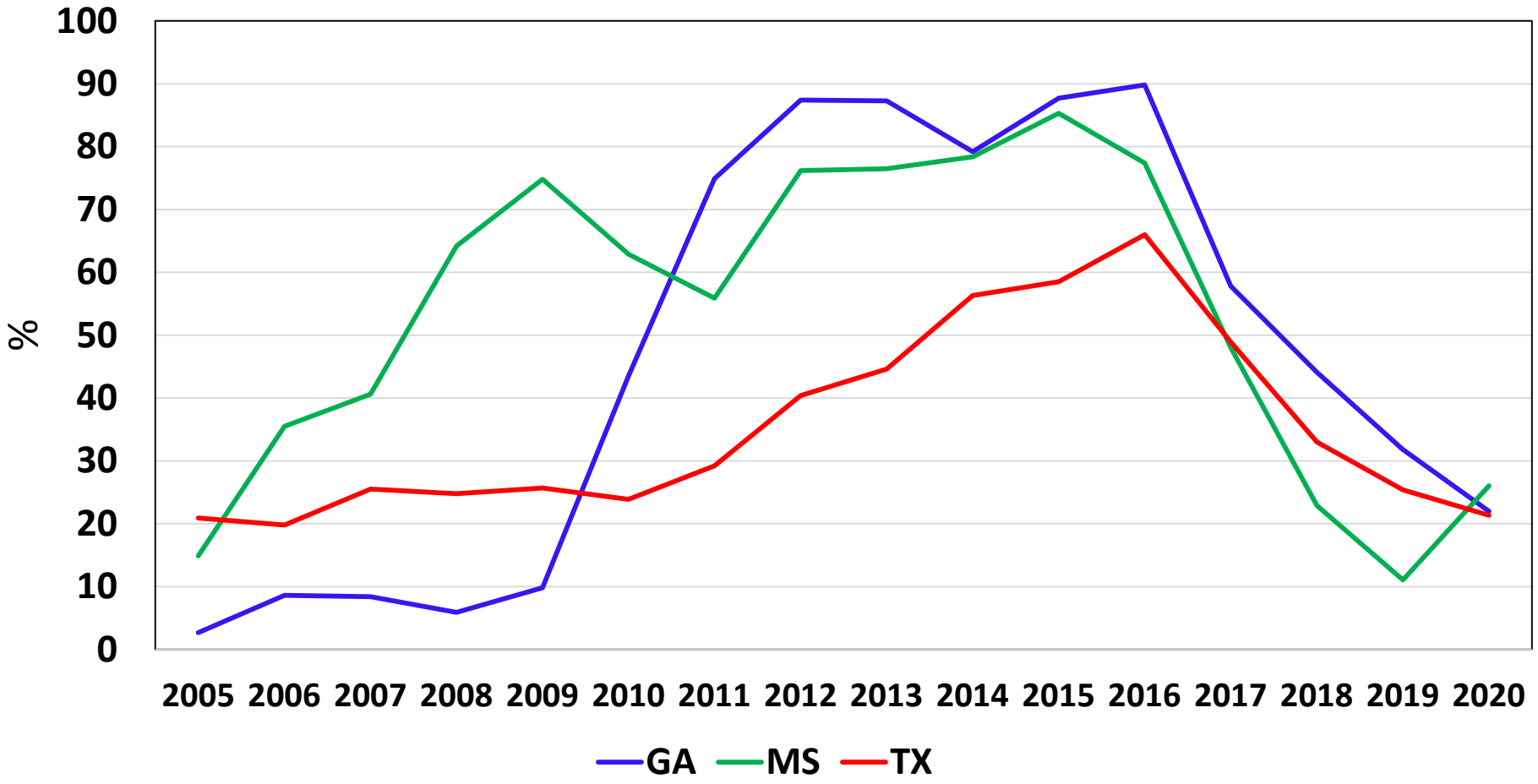


Bacterial Blight caused by *Xanthomonas citri pv. malvacearum*

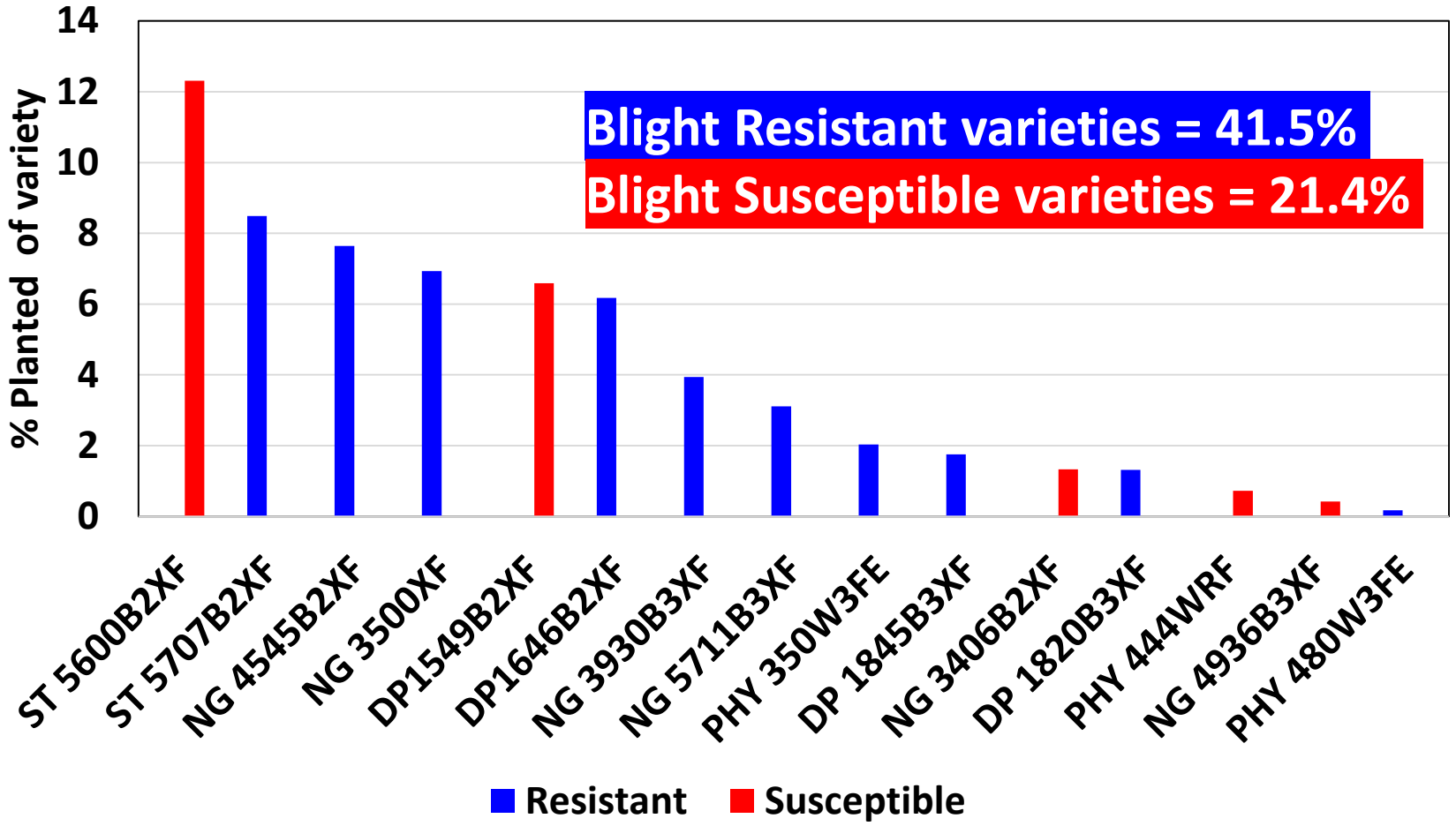




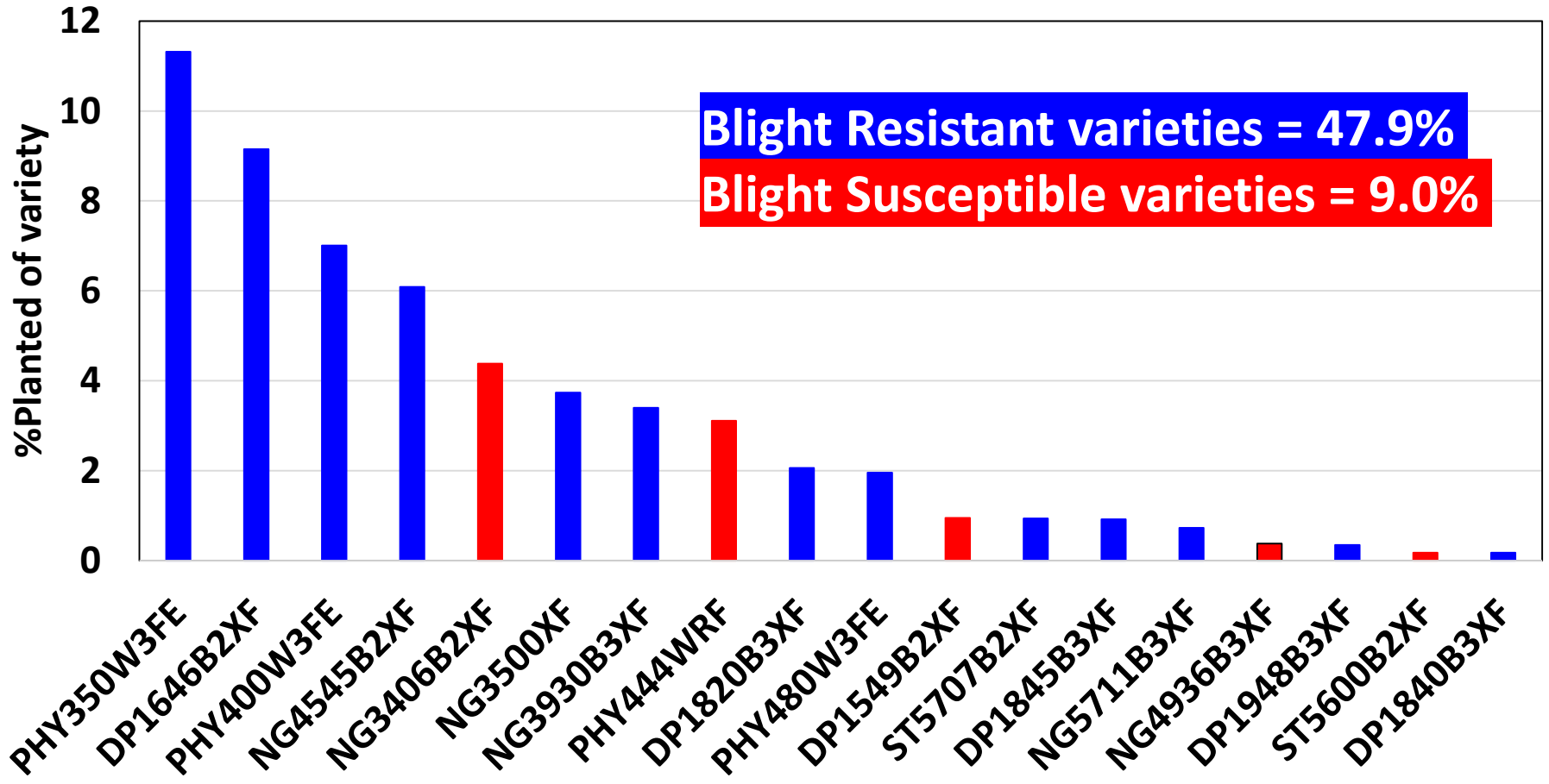
Cotton Varieties (%) planted that are Susceptible to Bacterial Blight.



Percent Planted of Certain Varieties Estimated by the Lamesa Classing Office



Percent Planted of Certain Varieties Estimated by the Lubbock Classing Office in 2020



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Plains Cotton Improvement Program
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