Leaf Spot Control with Various Fungicides Applied to Bailey II, Emery, and Sullivan

Ethan Foote, David Jordan, and Jeff Dunne
Department of Crop and Soil Sciences
North Carolina State University

Barbara Shew
Department of Entomology and Plant Pathology
North Carolina State University

919-810-6611
david_jordan@ncsu.edu

Funded by the North Carolina Peanut Growers Association
Objective 2 in Jordan traditional proposal

Materials and Methods

- Small plots, 4 rows by 30 feet
- 4 replications
- Planted in early to mid May
- Conventional tillage
- Backpack (11002 flat fan)
- 31 psi, 3 mph
- Split plot design (variety as whole plot, fungicide as sub-plot)
- “Spray” on two-week schedule
- Data are pooled over 3 locations
- Treatments to follow

Bailey II, Emery, Sullivan
No Fungicide

Bailey II, Emery, Sullivan

Spray 1, Chlorothalonil, 24 oz

Spray 2, Miravis, 3.4 oz

Spray 2, Elatus, 9.4 oz

Spray 3, No fungicide

Spray 4, Provost Silver, 13 oz

Spray 5, Chlorothalonil, 24 oz

Bailey II, Emery, Sullivan

Spray 1, Chlorothalonil, 24 oz
Spray 2, Provost Silver, 13 oz
Spray 3, Revytek, 14 oz
Spray 4, Lucento, 5.5 oz
Spray 5, Chlorothalonil, 24 oz
***Based on Leaf Spot Advisory**

Bailey II, Emery, Sullivan

Spray 1, Chlorothalonil, 24 oz

Spray 2, No fungicide

Spray 3, Chlorothalonil, 24 oz

Spray 3, Tebuconazole, 7.2 oz

Spray 4, No fungicide

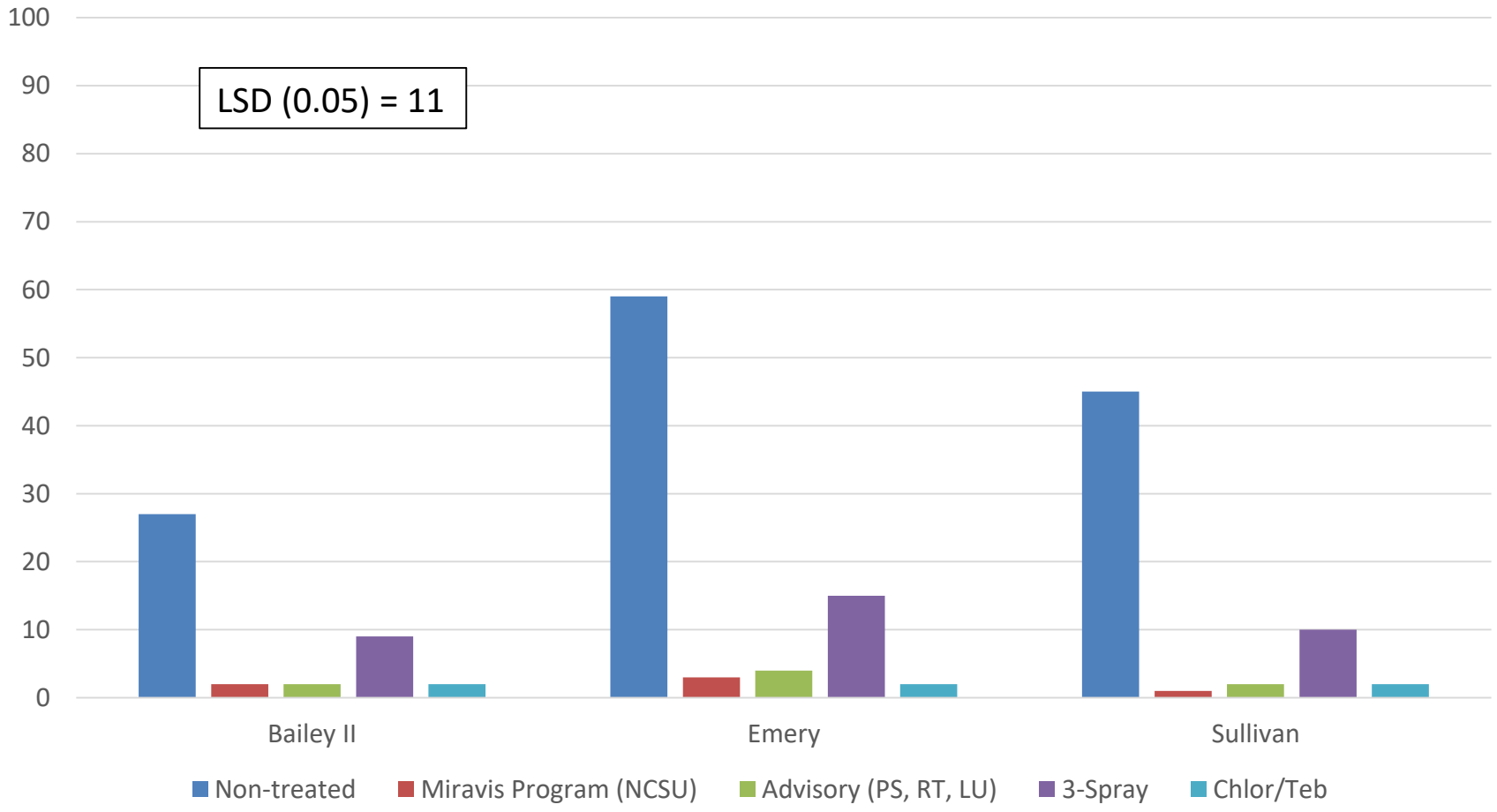
Spray 5, Chlorothalonil, 24 oz

Bailey II, Emery, Sullivan

Spray 1, Chlorothalonil, 24 oz
Spray 2, Chlorothalonil, 24 oz
Spray 2, Tebuconazole, 7.2 oz
Spray 3, Chlorothalonil, 24 oz
Spray 3, Tebuconazole, 7.2 oz
Spray 4, Chlorothalonil, 24 oz
Spray 4, Tebuconazole, 7.2 oz
Spray 5, Chlorothalonil, 24 oz

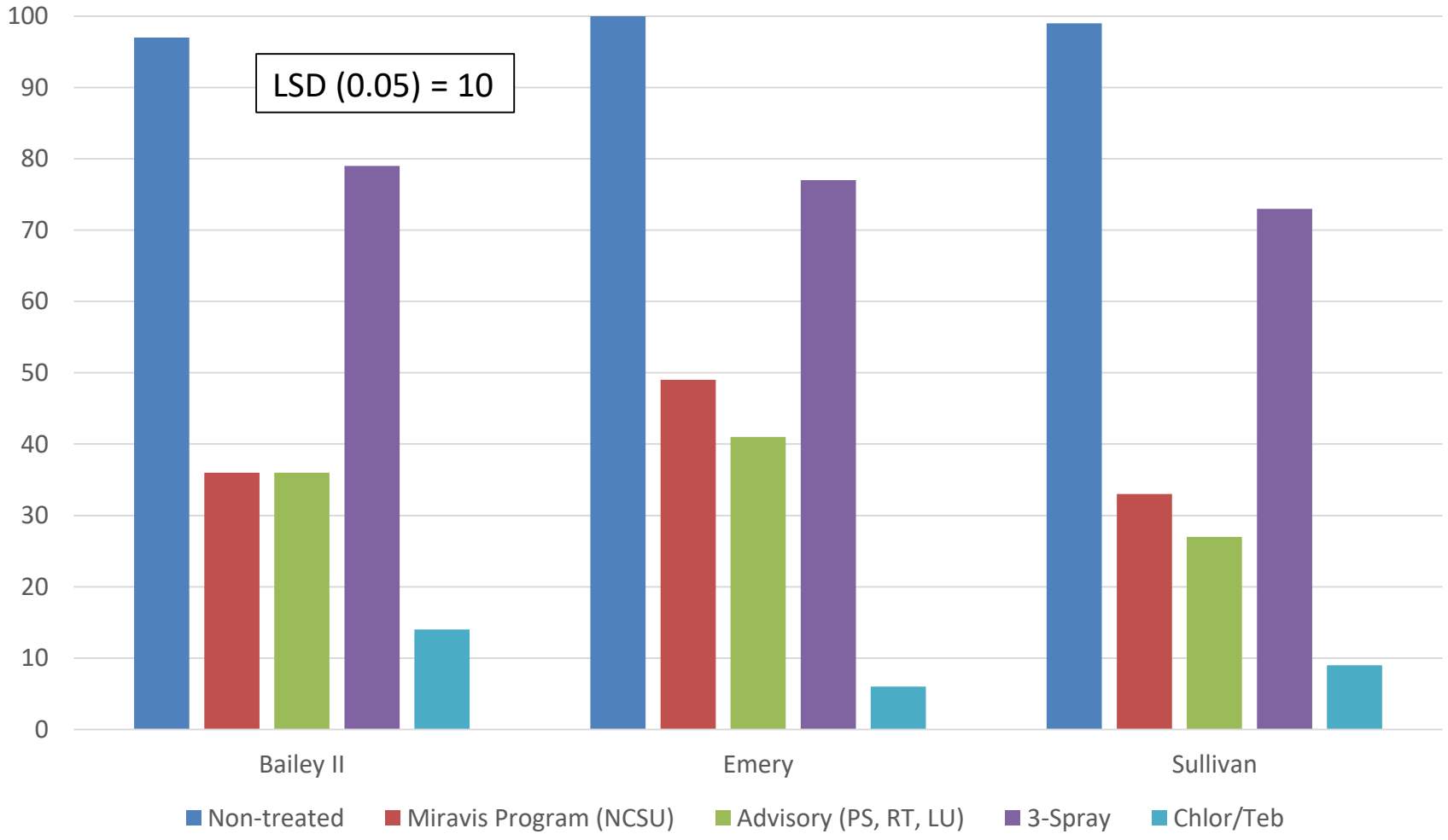
Leaf Spot Incidence (Percent of Leaves with Lesions) 10 Days Before Harvest

Data are pooled over three locations in 2021



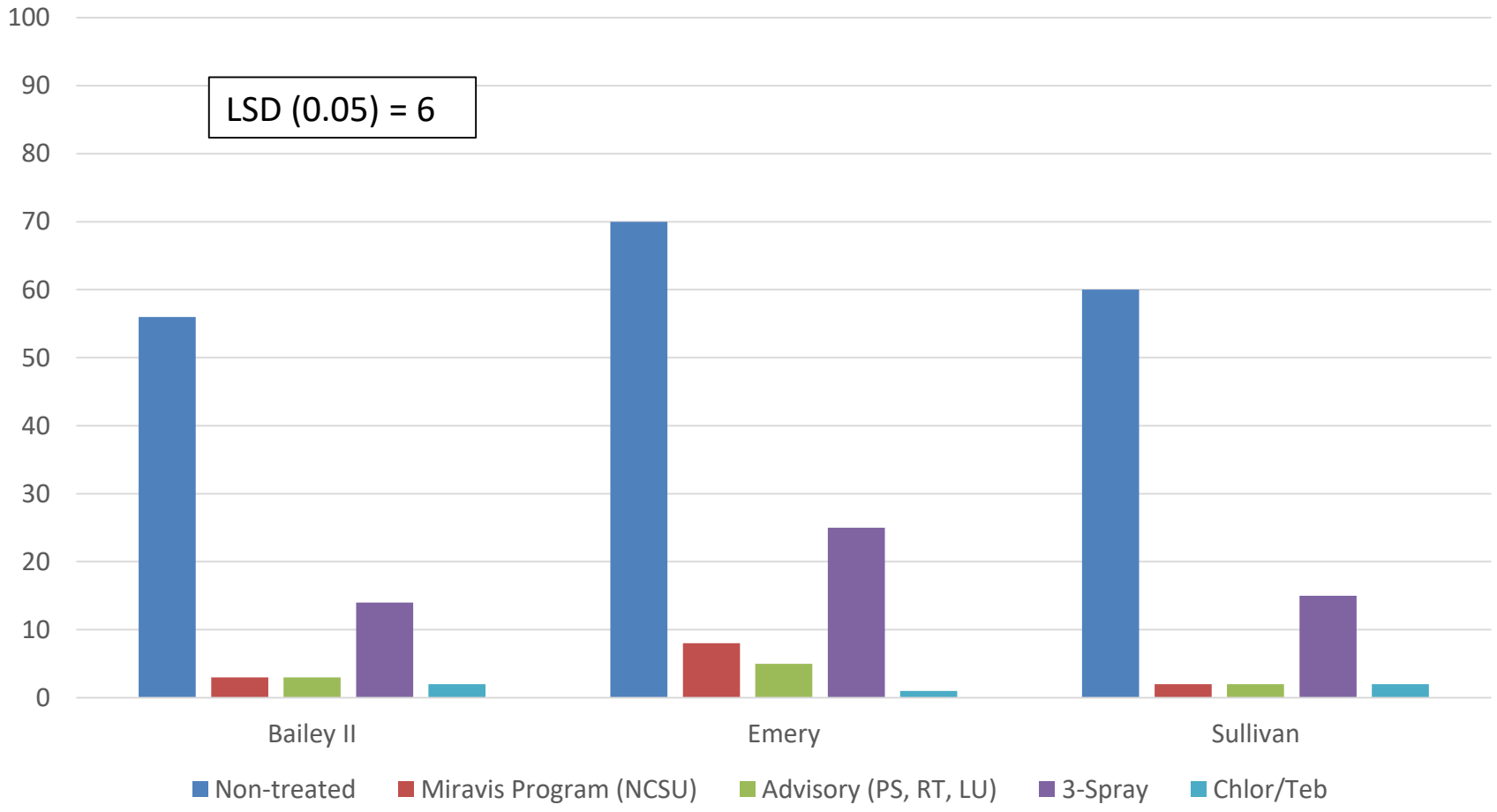
Leaf Spot Incidence (Percent of Leaves with Lesions) at Harvest

Data are pooled over three locations in 2021



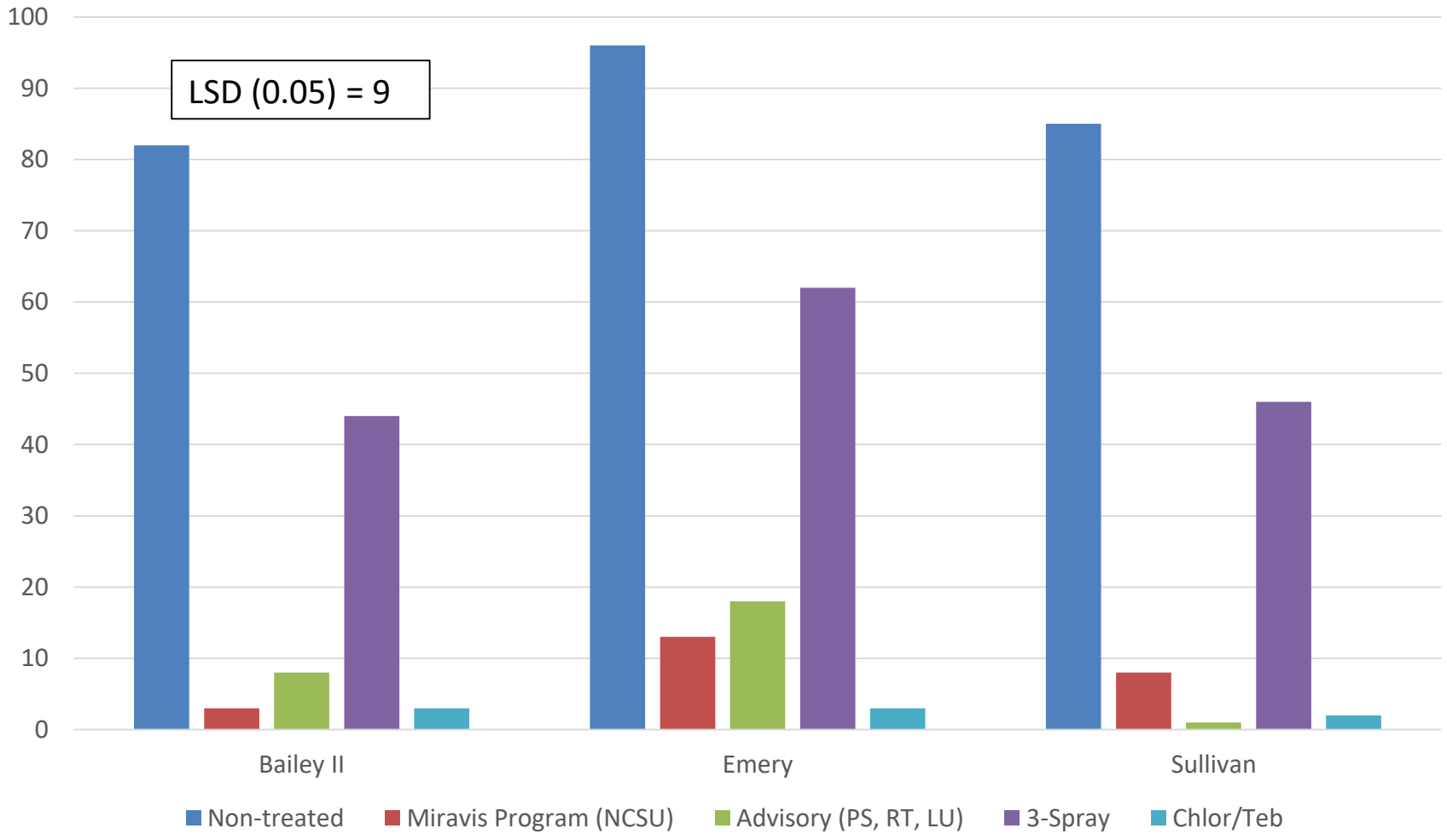
Canopy Defoliation (Percent of Leaves Lost) 10 Days Before Harvest

Data are pooled over three locations in 2021



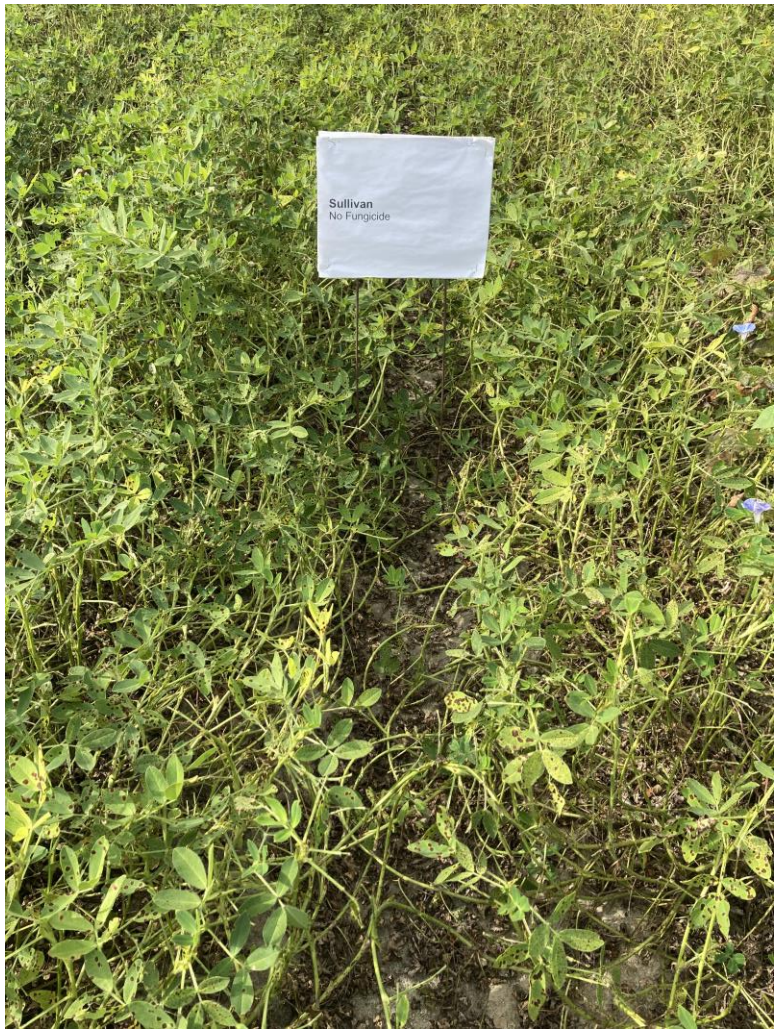
Canopy Defoliation (Percent of Leaves Lost) at Harvest

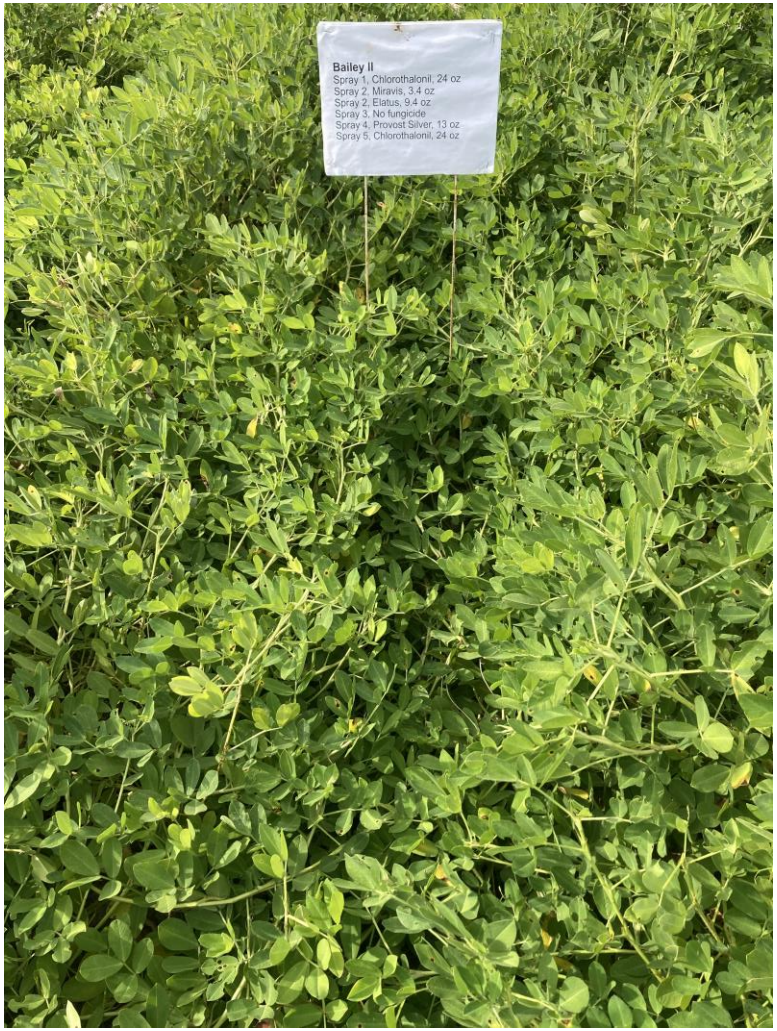
Data are pooled over three locations in 2021



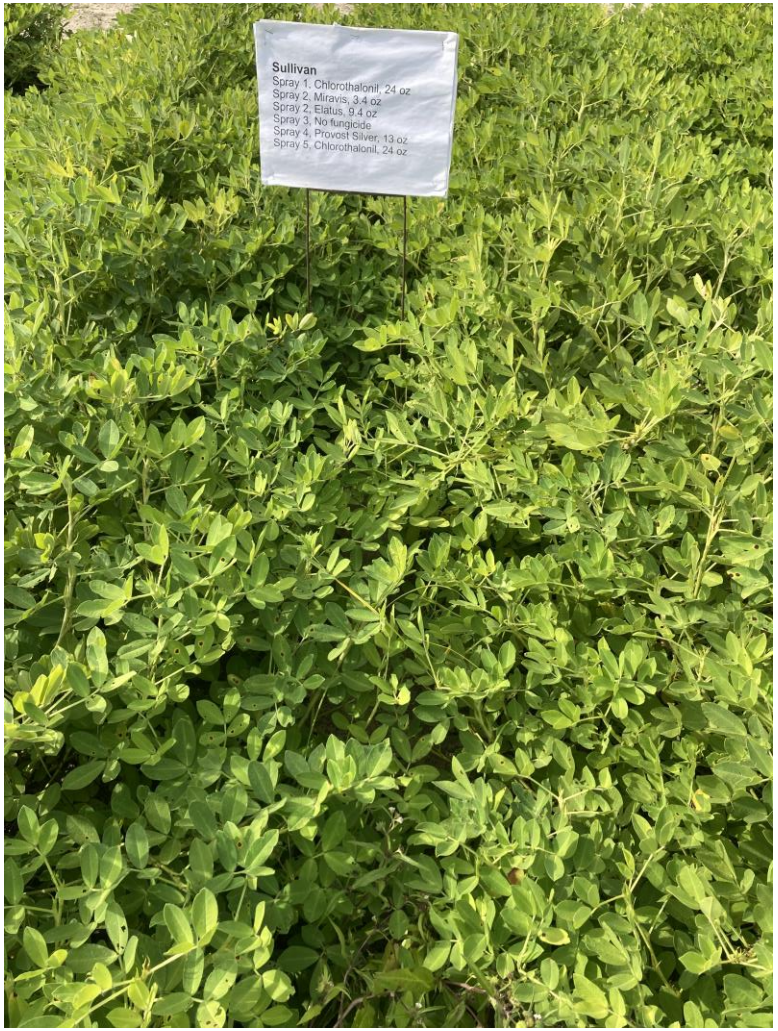

Bailey II
No Fungicide

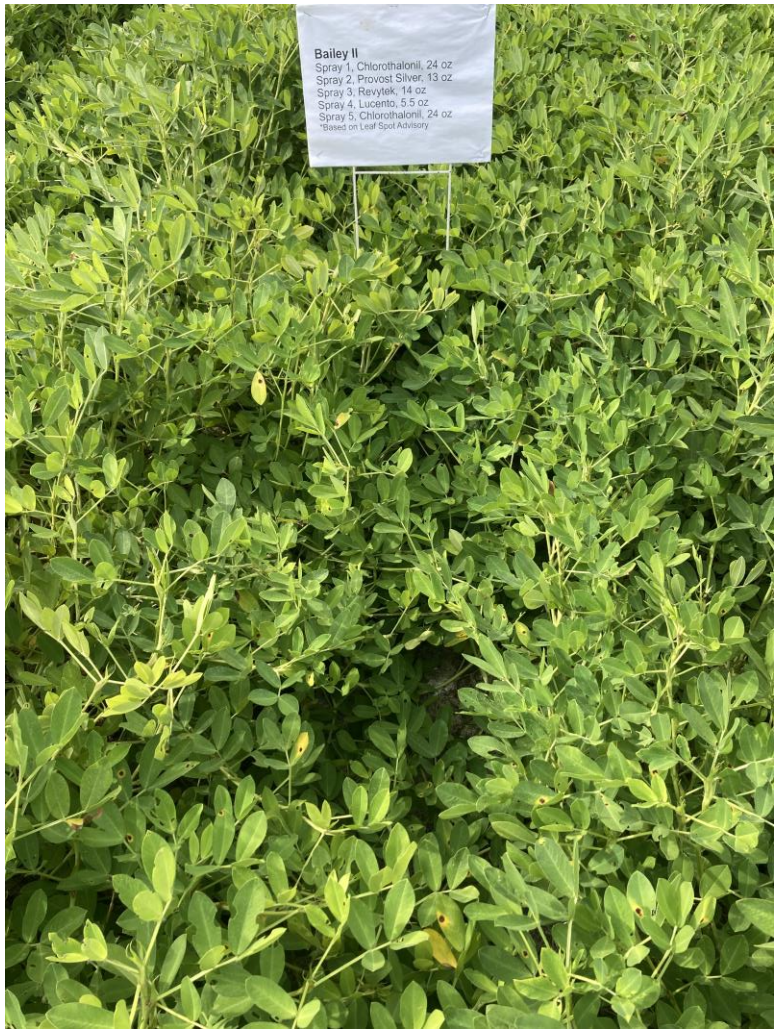

Emery
No Fungicide

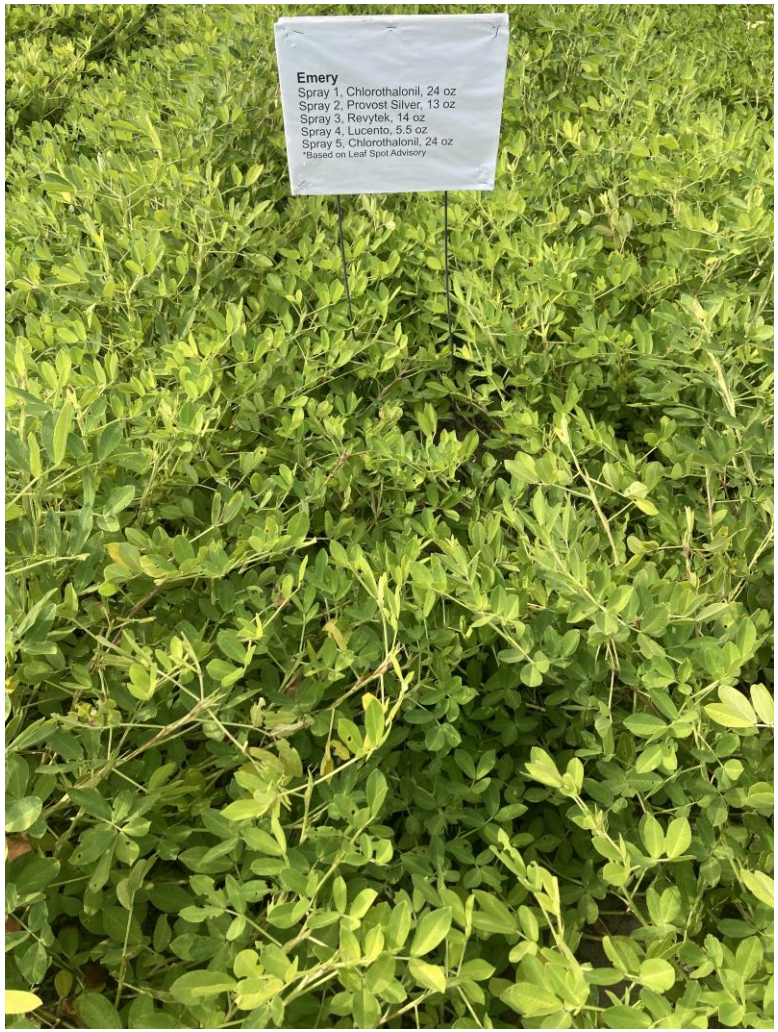

Sullivan
No Fungicide

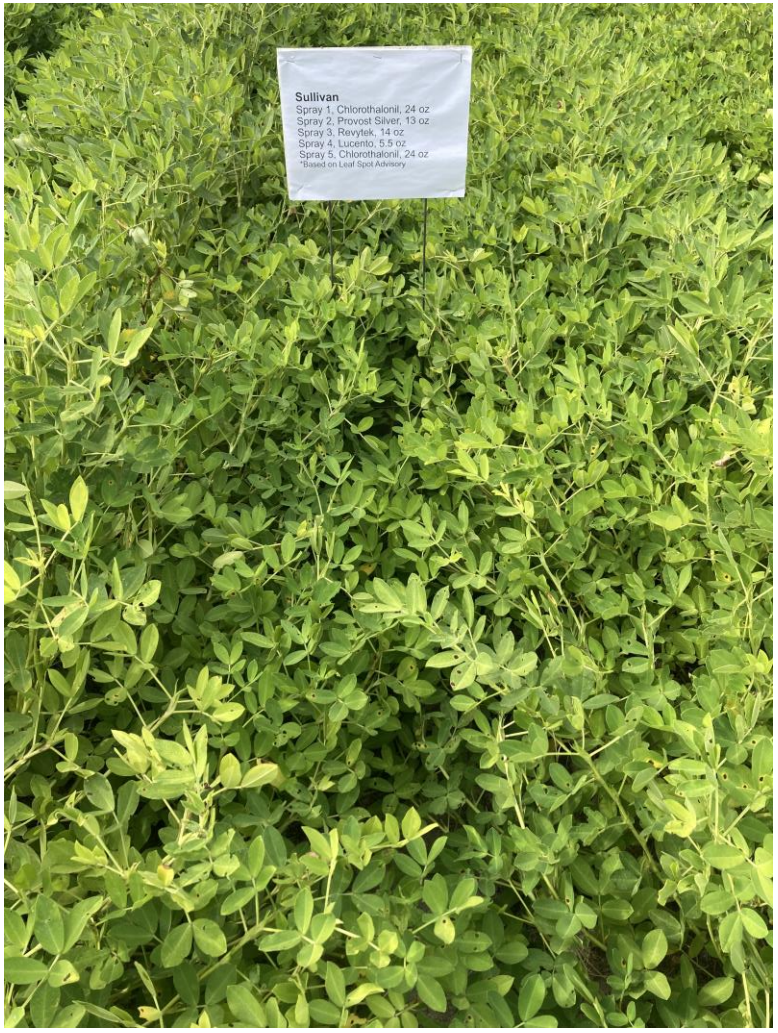

Bailey II
Spray 1, Chlorothalonil, 24 oz
Spray 2, Miravis, 3.4 oz
Spray 2, Elatus, 9.4 oz
Spray 3, No fungicide
Spray 4, Provost Silver, 13 oz
Spray 5, Chlorothalonil, 24 oz

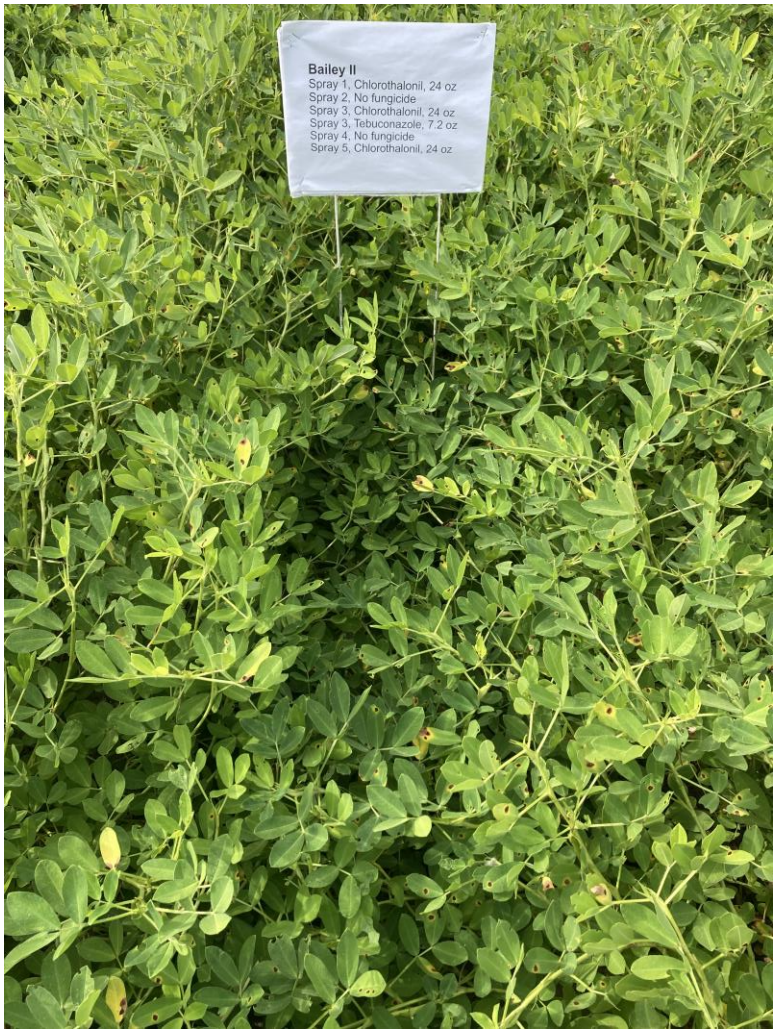

Emery
Spray 1, Chlorothalonil, 24 oz
Spray 2, Miravis, 3.4 oz
Spray 2, Elatus, 9.4 oz
Spray 3, No fungicide
Spray 4, Provost Silver, 13 oz
Spray 5, Chlorothalonil, 24 oz

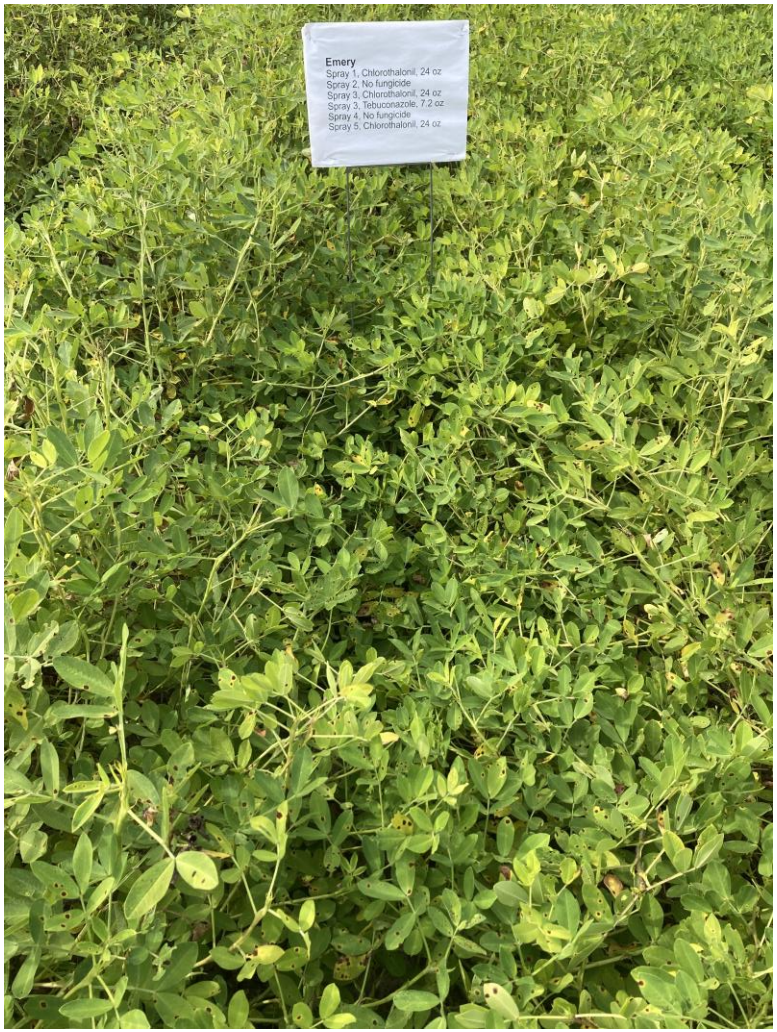

Sullivan
Spray 1, Chlorothalonil, 24 oz
Spray 2, Miravis, 3.4 oz
Spray 2, Elatus, 9.4 oz
Spray 3, No fungicide
Spray 4, Provost Silver, 13 oz
Spray 5, Chlorothalonil, 24 oz

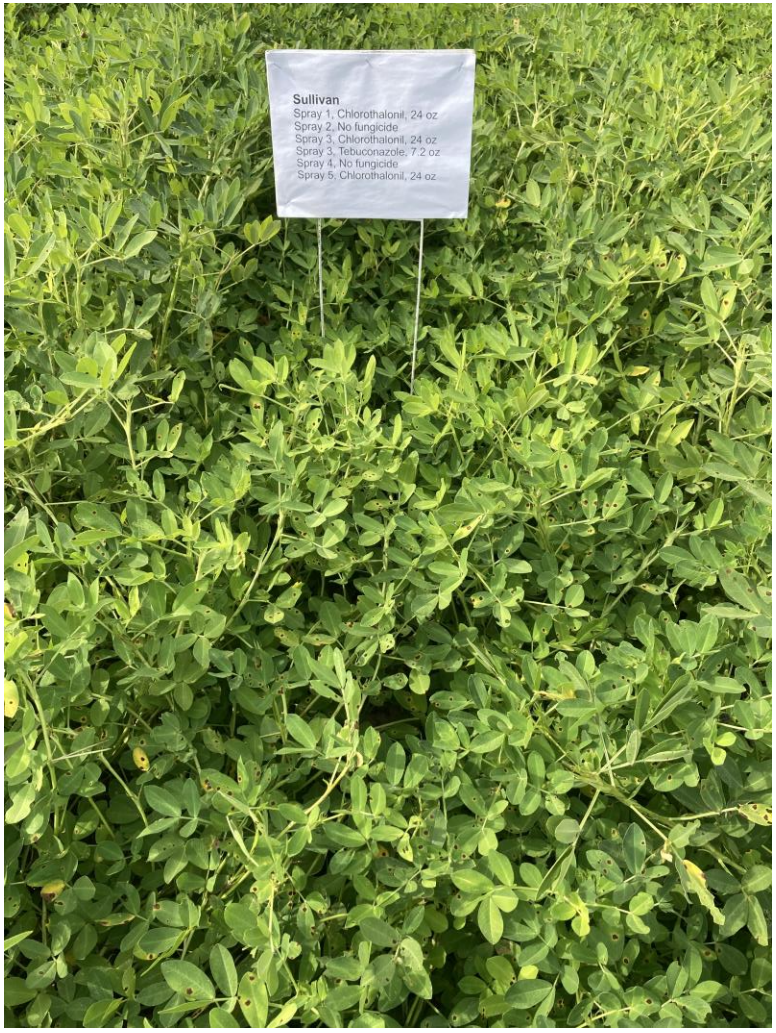

Bailey II
Spray 1, Chlorothalonil, 24 oz
Spray 2, Provost Silver, 13 oz
Spray 3, Revytek, 14 oz
Spray 4, Lucento, 5.5 oz
Spray 5, Chlorothalonil, 24 oz
*Based on Leaf Spot Advisory

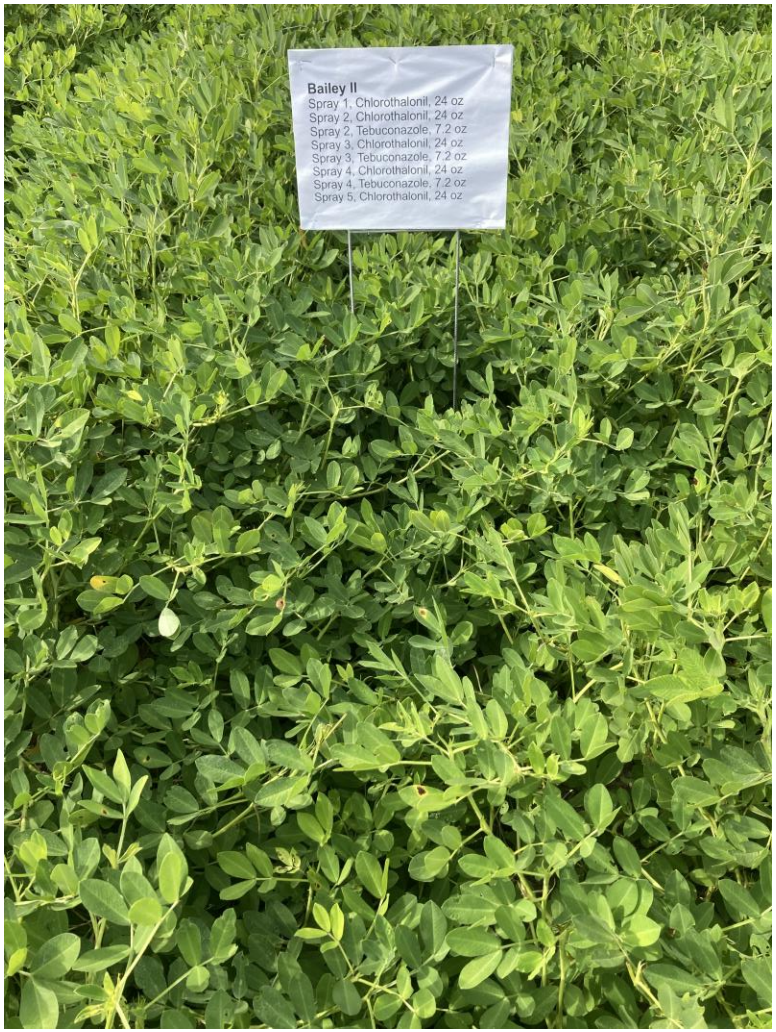

Emery
Spray 1, Chlorothalonil, 24 oz
Spray 2, Provost Silver, 13 oz
Spray 3, Revytek, 14 oz
Spray 4, Lucento, 5.5 oz
Spray 5, Chlorothalonil, 24 oz
*Based on Leaf Spot Advisory

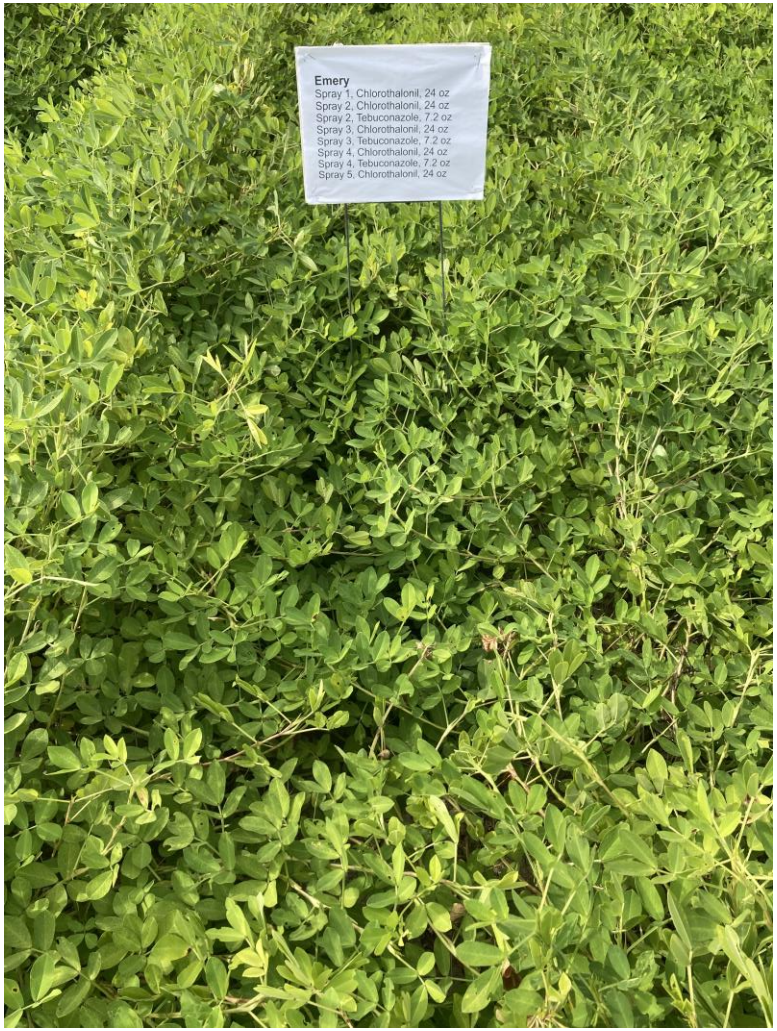

Sullivan
Spray 1, Chlorothalonil, 24 oz
Spray 2, Provost Silver, 13 oz
Spray 3, Revytek, 14 oz
Spray 4, Lucento, 5.5 oz
Spray 5, Chlorothalonil, 24 oz
*Based on Leaf Spot Advisory


Bailey II
Spray 1, Chlorothalonil, 24 oz
Spray 2, No fungicide
Spray 3, Chlorothalonil, 24 oz
Spray 3, Tebuconazole, 7.2 oz
Spray 4, No fungicide
Spray 5, Chlorothalonil, 24 oz


Emery
Spray 1, Chlorothalonil, 24 oz
Spray 2, No fungicide
Spray 3, Chlorothalonil, 24 oz
Spray 3, Tebuconazole, 7.2 oz
Spray 4, No fungicide
Spray 5, Chlorothalonil, 24 oz


Sullivan
Spray 1, Chlorothalonil, 24 oz
Spray 2, No fungicide
Spray 3, Chlorothalonil, 24 oz
Spray 3, Tebuconazole, 7.2 oz
Spray 4, No fungicide
Spray 5, Chlorothalonil, 24 oz

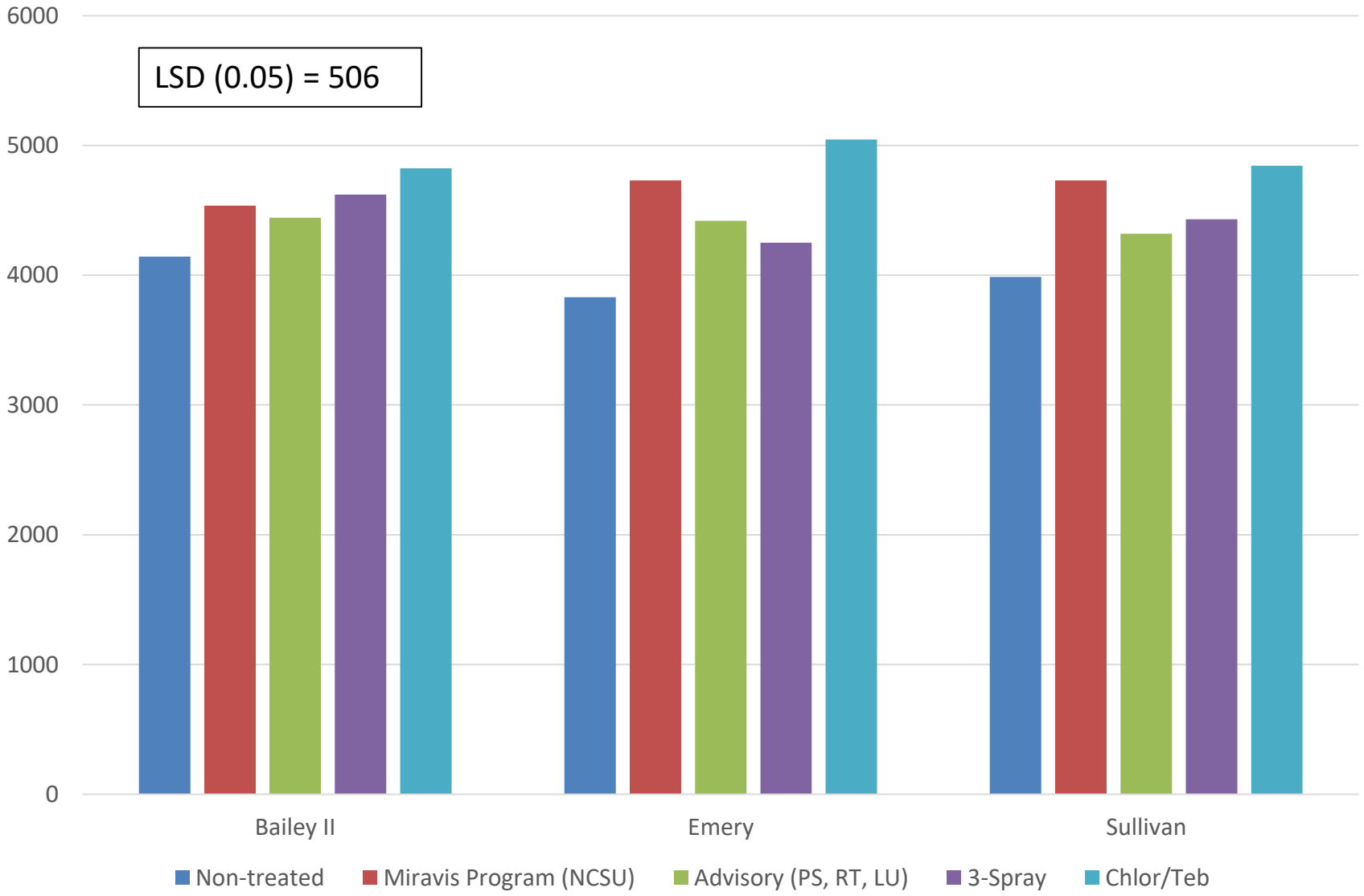

Bailey II
Spray 1, Chlorothalonil, 24 oz
Spray 2, Chlorothalonil, 24 oz
Spray 2, Tebuconazole, 7.2 oz
Spray 3, Chlorothalonil, 24 oz
Spray 3, Tebuconazole, 7.2 oz
Spray 4, Chlorothalonil, 24 oz
Spray 4, Tebuconazole, 7.2 oz
Spray 5, Chlorothalonil, 24 oz


Emery
Spray 1, Chlorothalonil, 24 oz
Spray 2, Chlorothalonil, 24 oz
Spray 2, Tebuconazole, 7.2 oz
Spray 3, Chlorothalonil, 24 oz
Spray 3, Tebuconazole, 7.2 oz
Spray 4, Chlorothalonil, 24 oz
Spray 4, Tebuconazole, 7.2 oz
Spray 5, Chlorothalonil, 24 oz


Sullivan
Spray 1, Chlorothalonil, 24 oz
Spray 2, Chlorothalonil, 24 oz
Spray 2, Tebuconazole, 7.2 oz
Spray 3, Chlorothalonil, 24 oz
Spray 3, Tebuconazole, 7.2 oz
Spray 4, Chlorothalonil, 24 oz
Spray 4, Tebuconazole, 7.2 oz
Spray 5, Chlorothalonil, 24 oz

Peanut Yield (pounds per acre) with Fungicides and Varieties

Data are pooled over three locations in 2021



Summary

- Emery was more susceptible to leaf spot than Bailey II or Sullivan – Bailey II was less susceptible than Sullivan
- Miravis program (NCSU) and Advisory program (Provost Silver, Revytek, Lucento) did well
- Chlorothalonil plus tebuconazole did really well (possible issues with this program include flaring spider mites and Sclerotinia blight with this much chlorothalonil **and** the 14-day interval needs to be tight – but the cost is great)