



Can Forage Soybeans Withstand Deer Grazing and Provide Yield?

Luke Macaulay, University of Maryland Extension, lukemac@umd.edu

Nicole Fiorellino, University of Maryland, Plant Sciences Department

Jim Lewis, University of Maryland Extension

Problem

- Deer damage is the single largest yield limiting factor for many farmers.
- \$10 million in losses annually, with 77% of those losses attributable to deer (USDA NASS 2011).



Methodology

Randomized complete block design.

Measure impacts of deer by:

- Trail cameras
- Exclosures,
- Aerial drone imagery
- Yields

Outreach

After data analysis, we will present results to the Maryland Soybean Board, the Maryland Farm Bureau, and other venues, and utilize findings in published materials.

Challenges of forage soybean diversions

- Only have roundup-ready traits
- Later maturing varieties (> Group 4.7)

Current Approach

- In 2020, harvested 33 bushels/acre from forage soybeans in field that could not grow any soybeans
- Explore whole field planting for heavily damaged fields

Varieties in Study

Forage soybeans:

1. Eagle Seed, Big Fellow, Group 7
2. La Crosse Seed, Brier Ridge, GT1, Group 4.7
3. Mossy Oak, Biologic, Group 6
4. Eagle Seed Multimax Mix
 - Eagle-P17 RR (Group 5.7) 60%
 - ES Big Fellow RR (Group 7) 30%
 - ES 4777 RR (Group 4.7) 8%

Conventional soybeans:

1. Pioneer Group 3.1 (P31T64E, Var. 86160724)
2. Pioneer Group 5.3 (P53T90E, Var. 5PQYD12)
3. Dynagrow Group 7.2 (S72XT80, Var. 01073480)



Potential future approaches

- Facilitating lethal removal
- Fencing
- Repellents
- Planting into green cover crops to reduce damage in the emergence (VE) through first trifoliolate (V1) stages

