

Material and Methods

Objective 2 – Clethodim applied with residual herbicides

Experimental Design:

- Randomized Complete Block Design
- 4 replications
- Peanut Belt Research Station, Lewiston-Woodville, NC
- 2020 in two fields

Material and Methods

Objective 2 – Clethodim applied with residual herbicides

- Variety: Bailey
- 15 GPA, 31 psi
- 11002 Flat Fan Nozzles
- Cobra applied the week before treatment

Treatments

1. Untreated Check
2. Clethodim,
3. Clethodim plus Anthem Flex,
4. Clethodim plus Dual Magnum,
5. Clethodim plus Zidua.

*Crop oil concentrate at 16 oz/ acre was applied with all Clethodim mixes

Results

- Texas panicum control by Clethodim did not differ when applied alone or with Anthem Flex, Dual Magnum, or Zidua.
- These results indicate that Clethodim and residual herbicides Anthem Flex, Dual Magnum, and Zidua will not adversely affect grass control.
- Chahal et al. (2013) reported that Dual Magnum and Outlook did not affect control by Clethodim or Sethoxydim

Material and Methods

Objective 3 – Clethodim applied with Adepdydin alone or with fungicides used for stem rot control

Experimental Design:

- Randomized Complete Block Design
- 4 replications
- Peanut Belt Research Station, Lewiston-Woodville, NC
- 2020 in two fields

Material and Methods

- Variety: Bailey
- 15 GPA, 31 psi
- 11002 Flat Fan Nozzles
- Cobra applied the week before treatment
- **Texas panicum was 5 to 10 inches tall**

Treatments

1. Untreated Check
2. Clethodim,
3. Clethodim plus Miravis,
4. Clethodim plus Miravis plus Elatus,
5. Clethodim plus Miravis plus Convoy.

* Crop oil concentrate at 16 oz/ acre was applied with all Clethodim mixes

Results

- Texas panicum control by Clethodim was similar when applied alone or with the fungicides Miravis, Miravis plus Elatus, or Miravis plus Convoy (control exceeded 95% for all treatments).
- These results also indicate that Clethodim and Miravis plus either Elatus or Convoy are compatible and will not adversely affect grass control.

Future Research

- Weed control when Anthem Flex is applied with other postemergence herbicides and to other weed complexes (most notably Palmer amaranth)
- Additional research is needed to determine if these herbicides and adjuvants affect disease control when applied with Miravis plus either Elatus or Convoy

Citations

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- Jordan, D.L., B.B. Shew, and R.L. Brandenburg. 2020. Compatibility of agrochemicals applied to peanut. Pages 165-172 in *2020 Peanut Information*. North Carolina Cooperative Extension Service Publication AG-331. 189 pages.
- Eure P.M., E.P. Prostko, and R.M. Merchant. 2015. Peanut Response to Postemergence Application of Pyroxasulfone. *Peanut Science*. Volume 42, Issue 1, Pages 44–48.
- Price, K, X. Li, A. Price, C. Chen, and T. Grey. 2020. Evaluation of Runner-Type Peanut Cultivar Tolerance to Paraquat Tank Mixes. *Peanut Science*. Volume 47 Issue 2, Pages 103–110.
- Chahal G.S., D.L. Jordan, A.C. York, R.L. Brandenburg, B.B. Shew, J.D. Burton, and D. Danehower. 2013. Interactions of Clethodim and Sethoxydim with Other Pesticides. *Peanut Science*. Volume 40, Issue 2, Pages 127–134.

Questions?