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FINAL REPORT FOR FUNDING BY GEORGIA AGRICULTURAL
COMMODITY COMMISSION FOR PEANUTS

Project Title:

Investigating the Potential for Older Herbicides to Be Used in Georgia Peanut Weed Management Programs

Principal Investigator:

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Background:

Peanuts are a major crop in Georgia and the southeast. However, few resources from the agricultural industry are spent on developing new herbicides for peanut. Field corn, soybean, wheat, and rice are the driver crops for new herbicide development due to the large number of acres grown in the US and around the world. At the current time, there is only 1 herbicide under consideration for development in peanut [Rexovor® (trifludimoxazin) from BASF]. Unfortunately, BASF is not convinced about potential future economic returns to justify further development. Thus, it's very possible that Rexovor® might not ever make it into the peanut herbicide market.

The lack of new herbicide discovery, pesticide cancellations, increasing regulations, and the general public's ignorance for pesticides could put future peanut weed management programs in jeopardy.

Objective:

The objective of the research was to evaluate Caparol® (prometryn) and Reglone® (diquat) for use in peanut weed control systems. Caparol® is already registered for peanut in other countries and has a mode of action not currently used in peanut (WSSA/HRAC #5, PSII-inhibitor). Reglone® has the potential to serve as a replacement for Gramoxone® (paraquat) if this registration was cancelled.

Rational and Economic Significance of Project:

University of Georgia weed scientists are in a unique position to influence the future registration of herbicides not yet labeled for us in peanuts grown in the US. With positive crop tolerance and efficacy results, industry could be convinced to label these herbicides for peanuts providing growers with additional weed control options.

Procedures and Plan of Investigation:

Two small-plot, replicated field trials were conducted at the UGA Ponder Research Farm to evaluate the potential of Caparol® and Reglone® for use in peanut weed control programs. These herbicides were compared to current standards.

Results:

Generally, Caparol® was less effective, less injurious, and less expensive than Valor® EZ (flumioxazin). However, when used in a PRE + POST program, weed control and yield with Caparol® were similar to current standards. Reglone® was slightly more injurious than Gramoxone® but provided similar weed control. Currently, Reglone® is more expensive than Gramoxone® since it is labeled for use on various specialty crops and is not labeled for peanut. Complete results from these trials can be found on-line at:

Weed Control in Peanut with Caparol®

<http://www.gaweed.com/trials/prostko2024/PDFFiles/PE-07-24.pdf>

Reglone® vs. Gramoxone® for Weed Control in Peanut

<http://www.gaweed.com/trials/prostko2024/PDFFiles/PE-10-24.pdf>

