PERFORMANCE OF FLAZASULFURON ON STRAWBERRY

IR-4 Project: P13322 (2024)

Date: 03/24

PROJECT TITLE, JUSTIFICATION AND OBJECTIVES:

Performance of FLAZASULFURON on STRAWBERRY. The purpose of this research is to collect performance data to support registration of flazasulfuron applied to annual strawberries grown in plastic mulch. Adherence to Good Laboratory Practices (GLPs) is not required for trials conducted under this research plan.

IR-4 PRODUCT PERFORMANCE RESEARCH COORDINATOR:

Consult with the Research Coordinator listed below regarding desired changes in this research plan prior to occurrence.

Roger B. Batts, IR-4 Project Headquarters, 1730 Varsity Dr., Venture IV, Suite 210, Raleigh, NC 27606, (919) 515-3054, e-mail: rbbatts@ncsu.edu

TEST SITE, TEST SUBSTANCES AND STATISTICAL ANALYSIS:

Field trials should be conducted at appropriate sites to determine the performance of flazasulfuron when applied to plasticulture strawberries. Evaluate the test materials listed below. Do not use old products for trial conducted under this research plan. If needed, the IR-4 Research Coordinator will arrange for fresh test substances to be delivered. If unsure, contact the IR-4 Research Coordinator for guidance.

Follow local agricultural practices for Strawberry production including fertilization, irrigation, if necessary and available, and other practices that ensure good crop production. Use a locally-grown, commercial variety of strawberry.

Each test site will include at least three replicates of each treatment, arranged in an appropriate statistical design. The individual plots should be large enough to permit accurate application of the test substances in a manner that represents the major application technique that will be used commercially. Conduct appropriate statistical analysis to determine if significant differences exist between treatments. Statistical analysis from commonly used agricultural data programs, such as Agricultural Research Manager (ARM), is acceptable.

TREATMENTS AND TIMING:

Use application equipment that will provide uniform application of the test substance and simulates the intended commercial application technique as specified below. To ensure accurate delivery, calibrate test application equipment prior to application of the test substance(s).

Trt#	Product(s)	Active ingredient(s)	Rate of formulated product (g/a)	Rate of active ingredient (lb ai/a)	Application Placement & Timing	Spray Volume Range (GPA)[1]
01	Untreated – Weed free*	N/A	N/A	N/A	N/A	N/A
02	Mission 25WG + NIS[2]	flazasulfuron	12.5	0.007	Broadcast Pretransplant	15-50
03	Mission 25WG + NIS[2]	flazasulfuron	25	0.014	Broadcast Pretransplant	15-50
04	Mission 25WG + NIS[2]	flazasulfuron	50	0.028	Broadcast Pretransplant	15-50
05	Mission 25WG + NIS[2]	flazasulfuron	12.5	0.007	Banded to soil between beds	15-50
06	Mission 25WG + NIS[2]	flazasulfuron	25	0.014	Banded to soil between beds	15-50
07	Mission 25WG + NIS[2]	flazasulfuron	50	0.028	Banded to soil between beds	15-50
08	Untreated – weedy	N/A	N/A	N/A	N/A	N/A

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*Maintain TRT 01 plots as weed-free as possible. If maintenance herbicides are used, they must not compromise the crop response evaluations targeted by this protocol. Trade name(s), active ingredient(s), rate(s) and application date(s) of maintenance herbicide(s) will be included in the final report.
[1]GPA=gallons per acre
[2]Treatment will include a nonionic surfactant (NIS) at 0.25% v/v. Trade name and component(s) of NIS will be included in the final report.

Application Description

TRT 02 - TRT 04: Broadcast Pretransplant to preformed beds prior to mulch and at least 21 days prior to strawberry transplanting.

TRT 05 – TRT 07: Using a hooded/shielded sprayer, make two banded applications to row middles, at an interval of 14 days with the last application occurring 14 days before first fruit harvest. Make the applications to soil and emerged weeds on both sides of strawberry beds. Do not allow the spray pattern to contact strawberry plants. Do not concentrate the test substance in the treated area. The rate specified is for treated area.

DATA COLLECTION:

Crop Injury: YES__X__ NO_____ OPTIONAL_____
Crop injury data will be collected if 7, 14, 28 and 42 days after transplanting and each banded application. Specify the type of injury (stunting, stand loss, leaf burn, leaf cupping or twisting, chlorosis, etc.) and assess if this level of injury is commercially acceptable. Photo images of significant injury should be collected and included in the final report.

Weed Control: YES__X__ NO_____ OPTIONAL_____
Weed control data will be collected if 7, 14, 28 and 42 days after transplanting and each banded application. Specify the weed(s) and the method used to evaluate the level of weed control.

Crop yield: YES__X__ NO_____ OPTIONAL_____
Yield data will be collected and will include yield/acre and, if appropriate, grades (quality and/or size) of harvested products according to official standards. An explanation of the standards should be included in the final report.

FINAL REPORT:

At trial completion, please submit a final report to the Research Coordinator and the appropriate ARS/Regional Field Coordinator listed below within 60 days of last data collection. This shall include but not be limited to:

- Data requirements listed above
- **Soil temperature at each application must be recorded and included in the final report. Detailed irrigation records during the trial period are also required.**
- Test site and application information; including soil characteristics, crop maintenance pesticides and cultural practices, description of the application equipment, environmental conditions at applications(s), meteorological and irrigation records, and other pertinent information, such as photos of significant crop injury.

The final report will also include a thorough narrative that analyzes the results and evaluates the potential of the tested products for use in the tested crop(s). The final report may be in paper or electronic format.

TRIAL SITE INFORMATION

Researcher	Field ID NO.	RFC
Edgar Vinson, Chilton Research and Extension Center, 120 County Road 756, Clanton, AL 35045; ph: 334-728-2407; email:vinsoed@auburn.edu	P13322.24-ALP03	SOR
Katie Jennings, MAILING: NC State University, Box 7609, Raleigh, NC	P13322.24-NCP06	SOR

27695; ph: 919-740-4500; e-mail: Katie_jennings@ncsu.edu; TEST SUBSTANCE SHIPPING: Katie Jennings, NC State Univ, Central Receiving/NCSU, 3240 Ligon Street, Raleigh, NC 27695; ph: 919-740-4500; e-mail: Katie_jennings@ncsu.edu		

RFC = Regional/ARS Field Coordinator
Location:
SOR: Kristen Searer-Jones, IR-4 Southern Region Field Office, Univ of Florida, 1642 SW 23 Drive Bldg 833, PO Box 110720, Gainesville, FL 32611-0720. Ph: 352-294-3979; email: k.searerjones@ufl.edu

Roger B Batts
Roger B. Batts, IR-4 Product Performance Research Coordinator

3-29-24
Date