

# 2009 Halosulfuron Crop Safety with Over-the-top Applications on In-ground Plants

## Final

**Ornamental Protocol Number: 09-012**

**Objective:** Determine phytotoxicity of Sedgehammer on perennial ornamental horticulture plants grown in the field.

**Experimental Design:**

**Plot Size:** Must be adequate to reflect actual use conditions.

**Replicates:** Minimum of 3 replications (preferably 4) with 3 plants per replicate

**Application Instructions:** Two over the top applications are to be made approximately 4 weeks apart, with the first application no sooner than 3 months after transplanting into the ground and after plants have completed their spring flush of growth. Applications should be made over the top of the plants using application equipment consistent with conventional commercial equipment. For all materials, target dry foliage. If dew is present at the time of application, note it. Do not irrigate treated plants until after spray has dried on the foliage and in no case sooner than 24 hours after application.

**Plant Materials:** Contact Regional Coordinator for up to date plant list. Plants grown in-ground only. Standardize the size or age of plants as much as possible

**Evaluations:** Record plant height & width at initial and final evaluations only. At 1, 2, and 4 weeks after each application, record phytotoxicity on a scale of 0 to 10 (0 = No phytotoxicity; 10 = Complete kill). If appropriate, also include ratings for chlorosis, defoliation, stunting or other growth effects on a scale of 0 to 10 (0 = No effect; 10 = Complete plant affected). If any significant injury is observed on the plants prior to the 1-week after application reading, describe and make a note of this in the report. In addition, if injury is noted at the 4-week after 2<sup>nd</sup> application reading, continue to observe these plants and record when recovery from the injury occurs. Closely check all plants to insure that the new growth on woody species is not affected. In spring 2010, observe the plants for any carry-over phytotoxicity effects. If any phytotoxicity is observed on treated plants, take pictures comparing treated and untreated plant material.

**Recordkeeping:** Keep detailed records of weather conditions including temperature and precipitation, soil-type, application equipment and spray procedures, non-ionic surfactant used, irrigation, liner size/age at planting date, plant height & width, and plant growth stage/condition at application and data collection dates. (Note: Description for “plant growth stage/condition” includes information such as, “active new foliar growth”, “active new foliar growth minimal but majority of leaves still soft and succulent”, “active new foliar growth complete and leaves hardened off”.)

**Treatments:**

Product	Rate	Special Instructions	Contact Information to obtain materials
Sedgehammer 75WG (halosulfuron)	0.67 oz per acre (0.031 lb ai)	Use an 0.25% v/v non-ionic surfactant and apply solution at 20 – 40 gpa.	Gowan, Nina Wilson, 928-819-1552, <a href="mailto:nwilson@gowanco.com">nwilson@gowanco.com</a>
	1.33 oz per acre (0.063 lb ai)		
	2.67 oz per acre (0.125 lb ai)		
Untreated	--	--	

**Reports:**

Reports submitted electronically on the standard IR-4 Ornamental Horticulture Research Report Form are preferred.

A report submitted electronically is preferred but not required. If the report is provided electronically, the basic report can be sent in MS Word or WordPerfect, the recordkeeping information as pdf or other electronic documents, and the raw data in MS Excel or other suitable program such as ARM.

**Please direct questions to:** Cristi Palmer, IR-4 HQ, Rutgers University, 681 US Hwy 1 S, North Brunswick, NJ 08902-3390, Phone 732-932-9575 x4629, [palmer@aesop.rutgers.edu](mailto:palmer@aesop.rutgers.edu) OR Ely Vea, 308 Aston Forest Lane, Crownsville, MD 21032, Phone & FAX#: 410-923-4880, E-mail: [evvea@comcast.net](mailto:evvea@comcast.net).