

## Phytotoxicity with over the top applications of select sedge control materials

### Ornamental Protocol Number: 07-009

**Objective:** Determine phytotoxicity of dimethenamid-p + pendimethalin G, F6875, and mesotrione to certain herbaceous ornamental plants, and these three plus dimethenamid-P EC on woody ornamental plants.

### 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 applications made approximately 4 weeks apart for Mesotrione and 8 weeks apart for F6875 and dimethenamid formulations, with the first application 7 days after potting. However, plant materials must have broken dormancy prior to first application. For liquid applications, use a minimum of 20 gal per acre. Applications should be made over the top of the plants using application equipment consistent with conventional commercial equipment. Please see table below for instructions for post-application irrigation.

**Plant Materials:** *Contact your Regional Coordinator for an up-to-date list.* Plants grown in field containers are preferred to in-ground. PR Numbers in the attached table refer to only those plants grown in field containers. Additional new PR Numbers will be assigned to plant material grown in-ground.

**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 phytotoxicity is observed in treated plants, take pictures comparing treated and untreated plant material.

**Recordkeeping:** Keep detailed records of weather conditions including temperature and precipitation, soil-type or soil-less media, application equipment, irrigation, liner size, plant height & width, and plant growth stage at application and data collection dates.

### Treatments:

Product	Rate	Special Instructions	Contact Information to obtain materials and any needed adjuvants
BAS 656h 63.9%EC (dimethenamid-p)	21 fl oz per acre (0.97 lb ai)	Woody ornamentals only. Irrigate within 1 and 4 hours after application.	BASF, Kathie Kalmowitz, 919-270-4592, <a href="mailto:kathie.kalmowitz@basf.com">kathie.kalmowitz@basf.com</a>
	42 fl oz per acre (1.94 lb ai)		
	84 fl oz per acre (3.88 lb ai)		
BAS 659h 1.75G (dimethenamid-p + pendimethalin)	150 lb per acre (2.65 lb ai)	Shipments planned for March/April 2007. Irrigate within 1 and 4 hours after application.	BASF, Kathie Kalmowitz, 919-270-4592, <a href="mailto:kathie.kalmowitz@basf.com">kathie.kalmowitz@basf.com</a>
	300 lb per acre (5.3 lb ai)		
	600 lb per acre (10.6 lb ai)		
F6875 (sulfentrazone +)	0.375 lb ai per acre		FMC, Bobby Walls, 919-735-3862, <a href="mailto:bobby_walls@fmc.com">bobby_walls@fmc.com</a>
	0.75 lb ai per acre		
	1.5 lb ai per acre		
Mesotrione	0.187 lb ai per acre (6 oz/A)		Syngenta, Nancy Rechsigl, 941-708-9338, <a href="mailto:nancy.rechsigl@syngenta.com">nancy.rechsigl@syngenta.com</a>
	0.25 lb ai per acre (8 oz/A)		
	0.37 lb ai per acre (12oz/A)		
Untreated	--	--	

### Reports:

Reports submitted 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).

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