

**IR-4 Ornamental Horticulture Program
F6875 (Sulfentrazone + Prodiamine) Crop Safety**

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Table of Contents

Table of Contents.....	2
Table of Tables	3
Abstract.....	4
Introduction.....	5
Materials and Methods.....	5
Results and Summary	5
Phytotoxicity	5
Label Suggestions	27
Appendix 1: Available Protocol.....	28
Appendix 2: Contributing Researchers.....	31
Appendix 3: Submitted Data.....	33

Table of Tables

Table 1.	List of F6875 0.3G treated crops with no or minimal transitory injury.....	6
Table 2.	List of F6875 0.3G treated crops with no or minimal transitory injury seen at the 1X rate, but the 2X or 4X rate did cause significant phytotoxicity	6
Table 3.	List of F6875 0.3G treated crops exhibiting significant injury.....	6
Table 4.	List of F6875 0.3G treated crops where more information is needed.	7
Table 5.	Detailed Summary of Crop Safety Testing with F6875 0.3G.....	8
Table 6.	Detailed Summary of Crop Safety Testing with F6875 4SC.....	25

Abstract

Since IR-4 has completed 175 trials with products containing sulfentrazone + prodiamine (F6875 0.3G and F6875 4SC) on 76 crops. The data contained in this report was generated to register uses of sulfentrazone + prodiamine formulation on and around ornamental horticulture plants with over-the-top applications. The rates tested were 0.375, 0.75 and 1.5 pounds active ingredient per acre (lb ai per A) as the 1X, 2X and 4X rates. F6875 4SC had been applied to 14 crops, but no conclusions can be drawn from this minimal set of data. F6875 0.3G had been applied to 62 plant genera or species. Of these, 14 exhibited no or minimal transient injury after application at all three rates. Nine crops (*Buddleia davidii*, *Echinacea sp.*, *Hemerocallis sp.*, *Hosta sp.*, *Iris sp.*, *Lobularia maritima*, *Ophiopogon sp.*, *Phlox paniculata*, and *Phlox subulata*) exhibited phytotoxicity at even the lowest rate.

Introduction

Control of nutsedges and sedges in the production of woody and herbaceous perennials can be problematic because nurseries grow many different types of plants and not all genera or species are listed on labels. These weeds can also be difficult to control in landscape settings for the same reason. Four herbicides – Tower EC (dimethenimid-p), Freehand G (dimethenamid-p + pendimethalin), F6875 (sulfentrazone + proflamizone), and Mesotrione – were chosen for 2007 research activities into level of crop safety on over 50 different plant species. This summary covers the results from F6875 0.3G and F6875 4SC from 2006 through 2008.

Materials and Methods

In the 2007 protocol, two applications of F6875 0.3G or F6875 4SC were made approximately 30 days apart. The application rates were 0.375, 0.75 and 1.5 lb ai per acre, plus a water treated control. A minimum of four plants (replicate treatments) were required with many researchers exceeding this minimum. Phytotoxicity was recorded on a scale of 0 to 10 (0 = No phytotoxicity; 10 = Complete kill) at 1, 2, 4, 8, and 12 weeks after initial application. This protocol was used in 2008. For more detailed materials and methods, please see Appendix 1: Protocols.

F6875 0.3G and F6875 4SC was supplied to researchers (See list of researchers in Appendix 2) by FMC Corporation.

Results and Summary

Phytotoxicity

Based on the type and nature of injury seen with F6875 0.3G and F6875 4SC applications in the conducted research, tested plant species were placed into four categories: 1) no significant phytotoxicity or growth differences from the untreated check or any injury was transitory, 2) no or minimal transitory injury seen at the 1X rate, but the 2X and/or 4X rates did cause significant phytotoxicity, 3) significant injury sufficient to recommend growers not utilize this product, and 4) more data is needed to make informed recommendations.

F6875 0.3G exhibited no or minimal negative impact on 14 plant species with over the top applications (Table 1). Some minimal injury may be acceptable for growers if applications are made several weeks to months in advance of crop sale particularly for woody ornamental crops. In the research presented here, three plants exhibited significant injury at higher rates consistently among the research sites. Only nine crops exhibited damage sufficient to recommend growers not utilize F6875 0.3G as an over-the-top treatment for pre-emergent weed control: *Buddleia davidii*, *Echinacea sp.*, *Hemerocallis sp.*, *Hosta sp.*, *Iris sp.*, *Lobularia maritima*, *Ophiopogon sp.*, *Phlox paniculata*, and *Phlox subulata* (Table 3). For 36 genera/species, more information is needed either because only 1 or 2 trials were conducted or because consistent results were not achieved among the research sites (Table 4).

In general, F6875 4SC exhibited no or minimal transient injury on the treated crops. However, there were not enough research sites on any given crop to enable further analysis.

Please see Tables 5 and 6 for a list of individual trial summaries on F6875 0.3G and F6875 4SC.

Table 1. List of F6875 0.3G treated crops with no or minimal transitory injury.

<i>Abies fraseri</i>	<i>Loropetalum chinensis</i>
<i>Calamagrostis acutiflora</i>	<i>Miscanthus sinensis</i> (See Regan)
<i>Dendranthema x morifolium</i>	<i>Pseudotsuga menziesii</i>
<i>Dianthus gratianopolitanus</i>	<i>Rhododendron sp.</i>
<i>Festuca ovina glauca</i>	<i>Rosa sp.</i>
<i>Hydrangea macrophylla</i>	<i>Salvia sp.</i>
<i>Lagerstroemia indica</i>	<i>Thuja occidentalis</i>

Table 2. List of F6875 0.3G treated crops with no or minimal transitory injury seen at the 1X rate, but the 2X or 4X rate did cause significant phytotoxicity

<i>Acer rubrum</i> ¹	<i>Vinca sp.</i> ²
<i>Lantana sp.</i>	

Table 3. List of F6875 0.3G treated crops exhibiting significant injury.

<i>Buddleia davidii</i>	<i>Iris sp.</i> ²	<i>Phlox subulata</i>
<i>Echinacea sp.</i>	<i>Lobularia maritima</i>	
<i>Hemerocallis sp.</i> ²	<i>Ophiopogon sp.</i>	
<i>Hosta sp.</i> ²	<i>Phlox paniculata</i>	

¹ No injury observed in two container trials; in one field trial injury observed at the highest rate

² Varied responses may be attributed to cultivar differences

³ This species did not exhibit injury across 2 or more species in the same genera.

⁴ This species only tested in ground and exhibited significant damage; additional testing in containers is warranted.

Table 4. List of F6875 0.3G treated crops where more information is needed.

<i>Berberis thunbergii</i> ²	<i>Liriope sp.</i>
<i>Buxus microphylla</i>	<i>Magnolia grandiflora</i> ³
<i>Buxus sinica</i>	<i>Magnolia sieboldi</i> ³
<i>Cladrastis sp.</i>	<i>Magnolia stellata</i> ³
<i>Coreopsis sp.</i>	<i>Magnolia virginiana</i> ³
<i>Fraxinus americana</i>	<i>Petunia sp.</i>
<i>Fraxinus pennsylvanica</i>	<i>Picea abies</i> ⁴
<i>Gaura lindheimeri</i>	<i>Picea glauca</i>
<i>Gleditsia tricanthos</i>	<i>Scabiosa sp.</i>
<i>Ilex cornuta</i> ³	<i>Spiraea sp.</i>
<i>Ilex crenata</i> ³	<i>Taxodium distichum</i>
<i>Ilex rotunda</i> ³	<i>Taxus baccata</i> ^{1,3}
<i>Ilex X meserveae</i> ³	<i>Taxus densiforma</i> ³
<i>Illicium sp.</i>	<i>Trachycarpus fortunei</i>
<i>Juniperus chinensis</i> ³	<i>Tsuga heterophylla</i> ⁴
<i>Juniperus davunica</i> ³	<i>Viburnum odoratissimum</i> ³
<i>Juniperus horizontalis</i> ³	<i>Viburnum plicatum</i> ³
<i>Juniperus squamata</i> ³	<i>Viburnum x pragense</i> ³

¹ No injury observed in two container trials; in one field trial injury observed at the highest rate

² Varied reponses may be attributed to cultivar differences

³ This species did not exhibit injury across 2 or more species in the same genera.

⁴ This species only tested in ground and exhibited significant damage; additional testing in containers is warranted.

Table 5. Detailed Summary of Crop Safety Testing with F6875 0.3G

Notes: Table entries are sorted by crop Latin name. Only those trials with research reports received by 5/4/09 are listed below.

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26322	Fir, Fraser	Abies fraseri		Field Container	Boydston	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20071120v.pdf
26322	Fir, Fraser	Abies fraseri		Field Container	Freiberger	2007	Over the top	No injury at 0.375 lb ai per acre, slight injury at 0.75 and 1.5 lb only after 2nd application	20080227l.pdf
26322	Fir, Fraser	Abies fraseri		Field Container	Reding	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; all plants marketable	20080128f.pdf
26539	Fir, Fraser	Abies fraseri		Field In-Ground	Beste/Frank	2007	Over the top	No significant injury or growth reduction at 0.484, 0.90 and 1.90 lb ai per acre at 1st application and at 0.375, 0.75 and 1.5 lb ai per acre at 2nd application; all plants marketable.	20080410a.pdf
26322	Fir, Fraser	Abies fraseri	'Roan Mountain'	Field Container	Marshall	2007	Over the top	One application. No injury at 0.375 and 0.75, slight at 1.5 lb ai per acre	20080401b.pdf
26196	Maple, Red	Acer rubrum		Field Container	Freiberger	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre after 1st, slight injury after 2nd application	20080227l.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26543	Maple, Red	Acer rubrum		Field In-Ground	Beste/Frank	2007	Over the top	No significant injury and growth reduction at 0.375 and 0.75 lb ai per acre; significant injury after 1st, but not after 2nd, application at 1.5 lb; all plants marketable.	20080418c.pdf
26196	Maple, Red	Acer rubrum	'Autumn Blaze'	Field Container	Gilliam	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20071219j.pdf
26285	Barberry	Berberis sp.	B. thunbergii 'Atropurpurea'	Field Container	Beste/Frank	2007	Over the top	No significant injury at 0.375, 0.75 and 1.5 lb ai per acre.	20080314b.pdf
26285	Barberry	Berberis sp.	B. thunbergii atropurpureum 'Crimson Pygmy'	Field Container	Beste/Frank	2008	Over the top	Very slight injury at 0.375, 0.75 and 1.5 lb ai per acre; all plants marketable	20090130d.pdf
26285	Barberry	Berberis sp.	B. thunbergii 'Crimson Pigmy'	Field Container	Lieth	2008	Over the top	Results not conclusive but leaf drop and blemishes at 0.375, 0.75 and 1.5 lb ai per acre unacceptable	20090420d.pdf
26337	Butterfly Bush	Buddleia davidii	'Purple Emperor'	Field Container	Reding	2007	Over the top	Severe injury at 0.375, 0.75 and 1.5 lb ai per acre	20080128f.pdf
26337	Butterfly Bush	Buddleia davidii	'Royal Red'	Field Container	Fraelich	2007	Over the top	No visible injury at 0.375, 0.75, and 1.5 lb ai per acre; however, there was slight stunting at the 1.5 lb ai per acre rate.	20080227s.pdf
26337	Butterfly Bush	Buddleia davidii	'White Ball'	Field Container	Marshall	2007	Over the top	One application. Slight injury at 0.375 and 0.75, moderate at 1.5 lb ai per acre	20080401b.pdf
26306	Boxwood	Buxus sp.	B. microphylla 'Faulkner'	Field Container	Klett	2007	Over the top	Slight injury (stunting and leaf discoloration) only at 1.5 lb ai per acre (4X) in one of two trials	20071220i.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26306	Boxwood	Buxus sp.	B. sinica var. insularis 'Wintergreen'	Field Container	Neal	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080204d.pdf
26306	Boxwood	Buxus sp.	'Green Velvet'	Field Container	Marshall	2007	Over the top	One application. No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080401b.pdf
26206	Feather Reed Grass	Calamagrostis acutiflora		Field Container	Boydston	2007	Over the top	Two sequential applications of F6875 applied 8 weeks apart at 0.375, 0.75, and 1.5 lb ai/A did not injure young feather reed grass plants. All plants were saleable.	20080229j.pdf
26206	Feather Reed Grass	Calamagrostis acutiflora		Field Container	Harvey	2007	Over the top	Very slight injury only at 4X rate (1.5 lb ai per acre)	20070823a.pdf
26206	Feather Reed Grass	Calamagrostis acutiflora		Field Container	Trader	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20080116i.pdf
26206	Feather Reed Grass	Calamagrostis acutiflora	'Karl Forester'	Field Container	Klett	2007	Over the top	Two trials; slight to moderate injury (leaf discoloration) at 0.375, 0.75 and 1.5 lb ai per acre; no growth reduction	20071220i.pdf
26318	Yellowwood	Cladrastis sp.	C. kentukea	Field Container	Freiberger	2007	Over the top	No injury after 1st, slight injury after 2nd application at 0.375, 0.75 and 1.5 lb ai per acre	20080227l.pdf
26220	Tickseed	Coreopsis sp.	'Baby Sun'	Field Container	Boydston	2008	Over the top	No significant injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; treated plants saleable	20090326c.pdf
26220	Tickseed	Coreopsis sp.	C. auriculata 'Nana'	Field Container	Boydston	2007	Over the top	Significant injury that lessened to non-significant by end of trial at 0.375, 0.75 and 1.5 lb ai per acre; no significant growth reduction; 1X and 2X probably saleable	20080128x.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26248	Hardy Mum	Dendranthema x morifolium	'Sheffield Pink'	Field Container	Czarnota	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080310b.pdf
26248	Hardy Mum	Dendranthema x morifolium	'Dazzler Stacy'	Field Container	Derr	2007	Over the top	4-8 % injury with complete recovery at 0.375, 0.75 and 1.5 lb ai per acre; excellent control of rice flatsedge and fragrant flatsedge at the highest rate	20071219c.pdf
26248	Hardy Mum	Dendranthema x morifolium	'Sunny Gretchen'	Field Container	Gilliam	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20071219j.pdf
26242	Pinks	Dianthus sp.	D. gratianopolitanus 'Firewitch'	Field Container	Boydston	2007	Over the top	No significant injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; treated plants saleable	20080128p.pdf
26242	Pinks	Dianthus sp.	D. gratianopolitanus 'Firewitch'	Field Container	Mathers	2007	Over the top	Slight but not significant injury (yellowing) at 0.375, 0.75 and 1.5 lb ai per acre after 1st application, plants recovered	20071106b.pdf
26242	Pinks	Dianthus sp.	D. gratianopolitanus 'Firewitch'	Field Container	Reding	2007	Over the top	No injury or growth reduction at 0.375, unacceptable at 0.75 and 1.5 lb ai per acre	20080128f.pdf
26356	Purple Coneflower	Echinacea sp.	E. purpurea	Field Container	Klett	2007	Over the top	Two trials; moderate to severe injury (distorted, bronzed foliage) at 0.375, 0.75 and 1.5 lb ai per acre; growth reduction	20071220i.pdf
26356	Purple Coneflower	Echinacea sp.	E. purpurea	Field Container	Mathers	2007	Over the top	Moderate to significant injury increasing with rate (0.375, 0.75, 1.5 lb ai per acre).	20071106d.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26356	Purple Coneflower	Echinacea sp.	E. purpurea 'Magnus'	Field Container	Fraelich	2007	Over the top	Moderate to severe injury increasing with rate (0.375, 0.75, 1.5 lb ai per acre). No plants were marketable at any rate.	20080227s.pdf
26356	Purple Coneflower	Echinacea sp.	E. purpurea 'Magnus'	Field Container	Reding	2007	Over the top	Severe injury at 0.375, 0.75 and 1.5 lb ai per acre	20080128f.pdf
26209	Blue Fescue	Festuca ovina glauca		Field Container	Mathers	2007	Over the top	Some browning on the leaves at the 1.5 lb ai per acre rate.	20080228a.pdf
26209	Blue Fescue	Festuca ovina glauca		Field Container	Klett	2007	Over the top	Two trials; injury (minor leaf discoloration) after the 2nd application at 0.75 and 1.5 lb ai per acre (2X and 4X); no growth reduction	20071220i.pdf
26209	Blue Fescue	Festuca ovina glauca		Field Container	Trader	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20080116i.pdf
26209	Blue Fescue	Festuca ovina glauca	'Elijah Blue'	Field Container	Boydston	2007	Over the top	Slight injury (leaf necrosis) and significant growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; treated plants saleable	20080128k.pdf
26260	Ash	Fraxinus sp.	F. americana	Field In-Ground	Beste/Frank	2007	Over the top	No significant injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; all plants marketable	20080410b.pdf
26260	Ash	Fraxinus sp.	F. pensylvanica	Field In-Ground	Beste/Frank	2008	Over the top	Significant injury with quick recovery only at 1st application, slight height reduction at 0.375, 0.75 and 1.5 lb ai per acre; all plants marketable	20090130d.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26245	Gaura	Gaura lindheimeri		Field Container	Boydston	2007	Over the top	Two sequential applications of F6875 applied 8 weeks apart at 0.375, 0.75, and 1.5 lb ai/A significantly injured young gaura plants causing leaf necrosis and stunting. Injury was less severe with the 1X rate of F6875 and some plants were saleable. Most pl	20080229n.pdf
26245	Gaura	Gaura lindheimeri	'Whirling Butterflies'	Field Container	Boydston	2008	Over the top	No significant injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; treated plants saleable	20090326c.pdf
26232	Honey Locust	Gleditsia sp.	G. tricanthos	Field In-Ground	Beste/Frank	2007	Over the top	No significant injury and growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; all plants marketable.	20080418c.pdf
26344	Daylily	Hemerocallis sp.	H. hemerocallis 'Blue Sheen'	Field Container	Reding	2007	Over the top	Severe injury at 0.375, 0.75 and 1.5 lb ai per acre	20080128f.pdf
26344	Daylily	Hemerocallis sp.	H. hybrida 'Stella D'Oro'	Field Container	Whitwell	2007	Over the top	Significant injury increasing with rates at 0.38, 0.75 and 1.5 lb ai per acre after 1st application	20071106e.pdf
26344	Daylily	Hemerocallis sp.	'Second Glance'	Field Container	Lieth	2007	Over the top	Severe injury after one application at 0.375, 0.75 and 1.5 lb ai per acre	20071005e.pdf
26344	Daylily	Hemerocallis sp.	'Stella d'Oro'	Field Container	Wade	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre.	20080116j.pdf
26300	Mallow, Rose Mallow	Hibiscus sp.	H. syriacus 'Minerva'	Field Container	Beste/Frank	2008	Over the top	No significant injury, growth and flower number reduction at 0.375, 0.75 and 1.5 lb ai per acre; all plants marketable	20090130d.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26263	Hosta	Hosta sp.		Field Container	Harvey	2007	Over the top	No injury after the first application at 0.375, 0.75 and 1.5 lb ai per acre, slight injury (chlorosis) at 4X rate after the second application	20070823a.pdf
26263	Hosta	Hosta sp.	H. sieboldiana	Field Container	Regan	2007	Over the top	Significant injury but no growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20080108c.pdf
26263	Hosta	Hosta sp.	H. sieboldiana 'Frances Williams'	Field Container	Reding	2007	Over the top	Moderate to severe injury at 0.375, 0.75 and 1.5 lb ai per acre	20080128f.pdf
26263	Hosta	Hosta sp.	'Honey Bells'	Field Container	Gilliam	2007	Over the top	Minor to moderate injury at 0.375, 0.75 and 1.5 lb ai per acre	20071219j.pdf
26263	Hosta	Hosta sp.	'Krossa Regal'	Field Container	Fraelich	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre.	20080227s.pdf
26252	Hydrangea	Hydrangea sp.		Field Container	Mathers	2007	Over the top	No visible injury at 0.375, 0.75 and 1.5 lb ai per acre, but high rate caused stunting.	20080228a.pdf
26252	Hydrangea	Hydrangea sp.	H. macrophylla 'Nikko Blue'	Field Container	Czarnota	2007	Over the top	25-33 % injury at 0.375, 0.75 and 1.5 lb ai per acre	20080310b.pdf
26252	Hydrangea	Hydrangea sp.	H. macrophylla 'Nikko Blue'	Field Container	Beste/Frank	2007	Over the top	No significant injury at 0.375, 0.75 and 1.5 lb ai per acre; however, there was a significant reduction in width and height increasing with rate.	20080314d.pdf
26252	Hydrangea	Hydrangea sp.	H. macrophylla 'Nikko Blue'	Field Container	Fraelich	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre.	20080227s.pdf
26252	Hydrangea	Hydrangea sp.	H. macrophylla 'Pink Shira'	Field Container	Reding	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; all plants marketable	20080128f.pdf
26333	Holly	Ilex sp.	'Conaf'	Field Container	Czarnota	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080310b.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26333	Holly	Ilex sp.	I. cornuta 'Bufordii Nana'	Field Container	Neal	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080204d.pdf
26333	Holly	Ilex sp.	I. cornuta 'Carissa'	Field Container	Fraelich	2007	Over the top	No significant injury at 0.375, 0.75, and 1.5 lb ai per acre.	20080227s.pdf
26333	Holly	Ilex sp.	I. crenata 'Green Luster'	Field Container	Whitwell	2007	Over the top	No injury or growth reduction at 0.38, 0.75 and 1.5 lb ai per acre	20071106e.pdf
26584	Holly	Ilex sp.	I. rotunda	Field In-Ground	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre	20070225c.pdf
26333	Holly	Ilex sp.	Ilex x meserveae 'Castle Wall'	Field Container	Reding	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre; increased plant growth	20080128f.pdf
26578	Anise Tree	Illicium sp.		Field In-Ground	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre	20070225c.pdf
26350	Flag	Iris sp.		Field Container	Mathers	2007	Over the top	No injury at 0.375 and 0.75 lb ai per acre, but 1.5 lb ai per acre did cause injury.	20080228a.pdf
26350	Flag	Iris sp.		Field Container	Harvey	2007	Over the top	No injury after the first application at 0.375, 0.75 and 1.5 lb ai per acre, medium and high injury (stunting) at 2X and 4X after the second application	20070823a.pdf
26350	Flag	Iris sp.	I. versicolor	Field Container	Reding	2007	Over the top	Severe injury at 0.375, 0.75 and 1.5 lb ai per acre	20080128f.pdf
26350	Flag	Iris sp.	'JJ91-A'	Field Container	Lieth	2007	Over the top	Unacceptable injury (necrotic patches on leaves and death of young leaves) at 0.375, 0.75 and 1.5 lb ai per acre	20071022b.pdf
26350	Flag	Iris sp.	'Yellow Flag'	Field Container	Gilliam	2007	Over the top	Moderate to severe injury at 0.375, 0.75 and 1.5 lb ai per acre	20071219j.pdf
26270	Juniper	Juniperus sp.		Field Container	Mathers	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre	20080228a.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26270	Juniper	Juniperus sp.		Field Container	Harvey	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20070823a.pdf
26270	Juniper	Juniperus sp.	J. chinensis 'Sea Green'	Field Container	Beste/Frank	2007	Over the top	No significant injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; all plants marketable	20080410c.pdf
26270	Juniper	Juniperus sp.	J. davunica 'Parsonii'	Field Container	Neal	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080204d.pdf
26270	Juniper	Juniperus sp.	J. horizontalis 'Youngstown'	Field Container	Regan	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20080108c.pdf
26270	Juniper	Juniperus sp.	J. squamata 'Blue Star'	Field Container	Ahrens/Mervosh	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080229c.pdf
26341	Crape Myrtle	Lagerstroemia indica		Field Container	Fraelich	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre.	20080227s.pdf
26341	Crape Myrtle	Lagerstroemia indica		Field Container	Trader	2007	Over the top	No injury, slight growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20080116i.pdf
26562	Crape Myrtle	Lagerstroemia indica		Field In-Ground	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre	20070225c.pdf
26341	Crape Myrtle	Lagerstroemia indica	'Cordon Blue'	Field Container	Whitwell	2007	Over the top	No injury or growth reduction at 0.38, 0.75 and 1.5 lb ai per acre	20071106e.pdf
26341	Crape Myrtle	Lagerstroemia indica	'Dynamite'	Field Container	Beste/Frank	2007	Over the top	No significant injury at 0.375, 0.75, and 1.5 lb ai per acre.	20080314c.pdf
26341	Crape Myrtle	Lagerstroemia indica	L. x 'Muskogee'	Field Container	Neal	2007	Over the top	No injury at 0.375, significant at 0.75 and 1.5 lb ai per acre; no injury after 2nd application	20080204d.pdf
26353	Shrub Verbena	Lantana sp.		Field Container	Harvey	2007	Over the top	No injury after the first application at 0.375, 0.75 and 1.5 lb ai per acre, significant injury at 4X rate after the second application	20070823a.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26353	Shrub Verbena	Lantana sp.	'New Gold'	Field Container	Czarnota	2007	Over the top	Slight injury after 1st, none after 2nd application at 0.375, 0.75 and 1.5 lb ai per acre	20080310b.pdf
26353	Shrub Verbena	Lantana sp.	L. camara	Field Container	Klett	2007	Over the top	Two trials; slight injury (leaf discoloration) mainly at 1.5 lb ai per acre (4X); no growth reduction	20071220i.pdf
26353	Shrub Verbena	Lantana sp.	L. x hybrida 'New Gold'	Field Container	Neal	2007	Over the top	No injury at 0.375, significant at 0.75 and 1.5 lb ai per acre after 1st application; no injury after 2nd application	20080204d.pdf
26434	Lilyturf, Creeping	Liriope sp.		Field Container	Trader	2007	Over the top	No injury or growth reduction at 0.375, no injury but significant growth reduction at 0.75, severe injury and growth reduction at 1.5 lb ai per acre	20080116i.pdf
27793	Sweet Alyssum	Lobularia maritima		Field Container	Fraelich	2007		No injury at 0.375; slight injury at 0.75 and 1.5 lb ai per acre and light stunting at 1.5 lb ai per acre; However, there was no difference in marketability.	20080227s.pdf
27793	Sweet Alyssum	Lobularia maritima		Field Container	Lieth	2008	Over the top	Unacceptable injury and growth effect at 0.375, 0.75 and 1.5 lb ai per acre	20090420d.pdf
26329	Loropetalum	Loropetalum sp.	L. chinense rubrum	Field Container	Czarnota	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080310b.pdf
26329	Loropetalum	Loropetalum sp.	L. chinense 'Zhuzhou Fuchsia'	Field Container	Whitwell	2007	Over the top	No significant injury or growth reduction at 0.38, 0.75 and 1.5 lb ai per acre	20071106e.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26329	Loropetalum	Loropetalum sp.	L. chinensis 'Ruby'	Field Container	Neal	2007	Over the top	No significant injury at 0.375, 0.75 and 1.5 lb ai per acre	20080204d.pdf
26329	Loropetalum	Loropetalum sp.	'Ruby'	Field Container	Gilliam	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20071219j.pdf
26559	Magnolia, Southern	Magnolia grandiflora		Field In-Ground	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre	20070225c.pdf
26314	Magnolia	Magnolia sp.	M. sieboldi	Field Container	Freiberger	2007	Over the top	No significant injury at 0.375, 0.75 and 1.5 lb ai per acre	20080227l.pdf
26314	Magnolia	Magnolia sp.	M. stellata 'Centennial'	Field Container	Beste/Frank	2007	Over the top	No significant injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; all plants marketable	20080410d.pdf
26314	Magnolia	Magnolia sp.	M. virginiana	Field Container	Fraelich	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre.	20080227s.pdf
26314	Magnolia	Magnolia sp.	'Victoria'	Field Container	Gilliam	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20071219j.pdf
26212	Silver Grass	Miscanthus sp.		Field Container	Trader	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre; some stunting	20080116i.pdf
26212	Silver Grass	Miscanthus sp.	M. sinensis 'Graziella'	Field Container	Mathers	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20071106c.pdf
26212	Silver Grass	Miscanthus sp.	M. sinensis 'Purpurascens'	Field Container	Boydston	2007	Over the top	No injury or significant growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; treated plants saleable	20080128v.pdf
26212	Silver Grass	Miscanthus sp.	M. sinensis 'Purpurascens'	Field Container	Regan	2007	Over the top	No injury at 0.375, significant injury after the 2nd application at 0.75 and 1.5 lb ai per acre; no growth reduction	20080108c.pdf
26437	Mondo Grass, Lilyturf, Ker-Gawl	Ophiopogon sp.		Field Container	Trader	2007	Over the top	Significant injury and growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20080116i.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26437	Mondo Grass, Lilyturf, Ker-Gawl	Ophiopogon sp.	O. japonicus	Field Container	Lieth	2008	Over the top	Light, acceptable injury at 0.375, unacceptable at 0.75 and 1.5 lb ai per acre; no growth reduction	20090420d.pdf
26347	Petunia	Petunia sp.		Field Container	Fraelich	2007	Over the top	No injury at 0.375 and 0.75 lb ai per acre, but slight injury at 1.5 lb ai per acre.	20080227s.pdf
26347	Petunia	Petunia sp.		Field Container	Harvey	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20071005c.pdf
26347	Petunia	Petunia sp.	P. hybrida	Field Container	Reding	2007	Over the top	Moderate to severe injury at 0.375, 0.75 and 1.5 lb ai per acre	20080128f.pdf
26215	Phlox, Perennial	Phlox paniculata		Field Container	Boydston	2007	Over the top	Two sequential applications of F6875 applied 8 weeks apart at 0.375, 0.75, and 1.5 lb ai/A significantly injured young perennial phlox plants but did not reduce final plant height or width. F6875 treatments did not appear to affect flowering of perennial	20080229p.pdf
26217	Creeping Phlox, Moss Pink	Phlox subulata		Field Container	Boydston	2007	Over the top	Two sequential applications of F6875 applied 8 weeks apart at 0.75, and 1.5 lb ai/A significantly stunted young creeping phlox plants and caused some leaf necrosis. Plants treated with two applications of F6875 at 0.375 lb ai/A were not significantly inju	20080229h.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26217	Creeping Phlox, Moss Pink	Phlox subulata		Field Container	Harvey	2007	Over the top	Slight injury (chlorosis) only at 4X rate (1.5 lb ai per acre)	20070823a.pdf
26217	Creeping Phlox, Moss Pink	Phlox subulata	'Emerald Blue	Field Container	Reding	2007	Over the top	Severe injury at 0.375, 0.75 and 1.5 lb ai per acre	20080128f.pdf
26544	Spruce	Picea sp.	P. abies	Field In-Ground	Beste/Frank	2007	Over the top	Extensive injury (43-98 %) at 0.375, 0.75 and 1.5 lb ai per acre; treated plants not marketable.	20080418c.pdf
26544	Spruce	Picea sp.	P. abies	Field In-Ground	Beste/Frank	2008	Over the top	Severe injury at 0.375, 0.75 and 1.5 lb ai per acre	20090316e.pdf
26293	Spruce	Picea sp.	P. glauca	Field Container	Freiberger	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080227l.pdf
26224	Fir, Douglas	Pseudotsuga menziesii		Field Container	Boydston	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20071120p.pdf
26224	Fir, Douglas	Pseudotsuga menziesii	'Blue'	Field Container	Marshall	2007	Over the top	One application. No injury at 0.375, slight at 0.75 and 1.5 lb ai per acre	20080401b.pdf
26224	Fir, Douglas	Pseudotsuga menziesii	P. menziesii glauca	Field Container	Freiberger	2007	Over the top	No significant injury at 0.375, 0.75 and 1.5 lb ai per acre	20080227l.pdf
26289	Azalea	Rhododendron sp.	'Amelia Rose'	Field Container	Gilliam	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20071219j.pdf
26289	Azalea	Rhododendron sp.	'Fashion'	Field Container	Fraelich	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre.	20080227s.pdf
26289	Azalea	Rhododendron sp.	'Tradition'	Field Container	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre.	20070225c.pdf
26289	Azalea	Rhododendron sp.	'Vulcan'	Field Container	Regan	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20080108c.pdf
26366	Rose	Rosa sp.	'Nearly Wild'	Field Container	Czarnota	2007	Over the top	Virtually no injury at 0.375, 0.75 and 1.5 lb ai per acre	20080310b.pdf
26366	Rose	Rosa sp.	'Flower Carpet Red'	Field Container	Neal	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080204d.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26366	Rose	Rosa sp.	'Nearly Wild'	Field Container	Lieth	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20070911c.pdf
26366	Rose	Rosa sp.	R. meidomonac 'Bonica'	Field Container	Boydston	2007	Over the top	No significant injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; treated plants saleable	20080128r.pdf
26203	Sage, Ramona	Salvia sylvestris	'May Night'	Field Container	Klett	2007	Over the top	Two trials; slight injury (leaf discoloration) at 0.375, 0.75 and 1.5 lb ai per acre; no growth reduction; plants salable	20071220i.pdf
26203	Sage, Ramona	Salvia sylvestris	S. farinaceae 'Victoria Blue'	Field Container	Beste/Frank	2007	Over the top	No significant injury at 0.375, 0.75, and 1.5 lb ai per acre, and no differences in plant, height, width or number of flowers.	20080314e.pdf
26203	Sage, Ramona	Salvia sylvestris	S. nemorosa 'Cardonna'	Field Container	Derr	2007	Over the top	No significant injury at 0.375, 0.75 and 1.5 lb ai per acre; excellent control of rice flatsedge and fragrant flatsedge at the highest rate	20071219c.pdf
26203	Sage, Ramona	Salvia sylvestris	'Snow Hill'	Field Container	Boydston	2007	Over the top	No significant injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; treated plants saleable	20080128t.pdf
26303	Pincushion Flower	Scabiosa sp.		Field Container	Harvey	2007	Over the top	Variable injury (none to severe) at all treatments including untreated Check	20070823c.pdf
26303	Pincushion Flower	Scabiosa sp.	S japonica 'Ritz Blue'	Field Container	Boydston	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20080128n.pdf
26281	Bridal-Wreath	Spiraea sp.	S. prunifolia	Field Container	Freiberger	2007	Over the top	Virtually no injury at 0.375 and 0.75 lb ai per acre; slight injury at 1.5 lb only after 2nd application	20080227l.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26281	Bridal-Wreath	Spiraea sp.	Spiraea x bumalda 'Gold Mound'	Field Container	Ahrens/Mervosh	2007	Over the top	Very minor injury at 0.375 and 0.75, slight at 1.5 lb ai per acre	20080229c.pdf
26555	Bald Cypress	Taxodium distichum		Field In-Ground	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre	20070225c.pdf
26310	Yew	Taxus sp.	T baccata 'Repandens'	Field Container	Beste/Frank	2007	Over the top	No significant injury and growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; all plants marketable.	20080418c.pdf
26310	Yew	Taxus sp.	T. baccata fasicata	Field Container	Freiberger	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080227l.pdf
26310	Yew	Taxus sp.	T. densiforma	Field Container	Fraelich	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre.	20080227s.pdf
26228	Cedar, Western Red	Thuja plicata		Field Container	Boydston	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20071120d.pdf
26277	Arborvitae	Thuja sp.		Field Container	Mathers	2007	Over the top	No injury at 0.372, 0.75, and 1.5 lb ai per acre.	20080228a.pdf
26567	Arborvitae	Thuja sp.	T. occidentalis	Field In-Ground	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre	20070225c.pdf
26277	Arborvitae	Thuja sp.	T. occidentalis 'Elegantissima'	Field Container	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre.	20070225c.pdf
26277	Arborvitae	Thuja sp.	T. occidentalis 'Emerald Green'	Field Container	Ahrens/Mervosh	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080229c.pdf
26277	Arborvitae	Thuja sp.	T. occidentalis 'Emerald Green'	Field Container	Lieth	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre	20071022c.pdf
26277	Arborvitae	Thuja sp.	T. orientalis 'Green Giant'	Field Container	Neal	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080204d.pdf
26572	Palm, Windmill	Trachycarpus fortunei		Field In-Ground	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre	20070225c.pdf
26666	Hemlock, Western	Tsuga heterophylla		Field In-Ground	Beste/Frank	2007	Over the top	Data indicated no significant injury and growth reduction at 0.375 and 0.75 lb ai per acre, significant injury at 1.5 lb	20080418c.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26666	Hemlock, Western	Tsuga heterophylla		Field In-Ground	Beste/Frank	2008	Over the top	Severe injury at 0.375, 0.75 and 1.5 lb ai per acre	20081224a.pdf
26256	Arrowwood	Viburnum sp.	V. odoratissimum	Field Container	Neal	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080204d.pdf
26256	Arrowwood	Viburnum sp.	V. opulus	Field Container	Regan	2007	Over the top	No injury or growth reduction at 0.375 and 0.75, significant injury and growth reduction at 1.5 lb ai per acre	20080108c.pdf
26256	Arrowwood	Viburnum sp.	V. plicatum 'Shasta'	Field Container	Ahrens/Mervosh	2007	Over the top	No significant injury at 0.375, 0.75 and 1.5 lb ai per acre	20080229c.pdf
26256	Arrowwood	Viburnum sp.	V. plicatum 'Shoshoni'	Field Container	Beste/Frank	2007	Over the top	No significant injury at 0.375, 0.75, and 1.5 lb ai per acre.	20080314a.pdf
26256	Arrowwood	Viburnum sp.	V. x pragense	Field Container	Neal	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080204d.pdf
26296	Periwinkle	Vinca sp.		Field Container	Boydston	2007	Over the top	Two sequential applications of F6875 applied 8 weeks apart at 0.375, 0.75, and 1.5 lb ai/A significantly injured young periwinkle plants and caused some leaf necrosis and stunting. All treated except for possibly two plants were saleable.	20080229r.pdf
26296	Periwinkle	Vinca sp.	'Pinkstar'	Field Container	Wade	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080116j.pdf
26296	Periwinkle	Vinca sp.	V. minor	Field Container	Freiberger	2007	Over the top	No injury after 1st, slight injury after 2nd application at 0.375, 0.75 and 1.5 lb ai per acre	20080227l.pdf
26296	Periwinkle	Vinca sp.	V. minor 'Bowles'	Field Container	Lieth	2007	Over the top	No significant injury or growth effect at 0.375, 0.75 and 1.5 lb ai per acre	20071005f.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26296	Periwinkle	Vinca sp.	V. minor 'Ralph Shubert'	Field Container	Reding	2007	Over the top	Moderate to severe injury at 0.375, 0.75 and 1.5 lb ai per acre	20080128f.pdf

Table 6. Detailed Summary of Crop Safety Testing with F6875 4SC

Notes: Table entries are sorted by crop Latin name. Only those trials with research reports received by 2/27/2008 are listed below.

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
27677	Butterfly Bush	Buddleia davidii	'Nanho Purple'	Field Container	Wade	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080116j.pdf
27678	Purple Coneflower	Echinacea sp.	'Magnus'	Field Container	Wade	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080116j.pdf
26551	Cape Jasmine, Radicans	Gardenia augusta 'Radicans'		Field Container	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre.	20070225c.pdf
27679	Hydrangea	Hydrangea sp.	H. macrophylla 'Endless Summer'	Field Container	Wade	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080116j.pdf
26585	Holly	Ilex sp.	I. rotunda	Field In-Ground	Czarnota	2006	Over the top	Very slight injury at 0.75 and 1.13 lb ai per acre	20070225c.pdf
26579	Anise Tree	Illicium sp.		Field In-Ground	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre	20070225c.pdf
26563	Crape Myrtle	Lagerstroemia indica		Field In-Ground	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre	20070225c.pdf
27680	Crape Myrtle	Lagerstroemia indica	'Catawea'	Field Container	Wade	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080116j.pdf
26560	Magnolia, Southern	Magnolia grandiflora		Field In-Ground	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre	20070225c.pdf
27681	Magnolia	Magnolia sp.	M. grandiflora 'Alta'	Field Container	Wade	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080116j.pdf
27682	Petunia	Petunia sp.	'Double Cascade Blue'	Field Container	Wade	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080116j.pdf
27683	Phlox, Perennial	Phlox paniculata	'Sub Snowflake'	Field Container	Wade	2007	Over the top	Slight injury at 0.375, 0.75 and 1.5 lb ai per acre after 1st application; complete recovery in 2 weeks	20080116j.pdf
26552	Azalea	Rhododendron sp.	'Gwenda'	Field Container	Wade	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre	20080116j.pdf

PR #	Crop			Production Site	Researcher(s)	Year	Application Method	Results Summary	File Name
	Common Name	Latin Name	Cultivar						
26552	Azalea	Rhododendron sp.	'Tradition'	Field Container	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre.	20070225c.pdf
26556	Bald Cypress	Taxodium distichum		Field In-Ground	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre	20070225c.pdf
26568	Arborvitae	Thuja sp.	T. occidentalis	Field In-Ground	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre	20070225c.pdf
26687	Arborvitae	Thuja sp.	T. occidentalis 'Elegantissima'	Field Container	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre.	20070225c.pdf
26573	Palm, Windmill	Trachycarpus fortunei		Field In-Ground	Czarnota	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre	20070225c.pdf

Label Suggestions

For F6875 0.3G, it is suggested that the 14 crop species exhibiting no injury in the testing with F6875 0.3G be placed on the label with over-the-top applications.

Abies fraseri

Calamagrostis acutiflora

Dendranthema x morifolium

Dianthus gratianopolitanus

Festuca ovina glauca

Hydrangea macrophylla

Lagerstroemia indica

Loropetalum chinensis

Miscanthus sinensis (See Regan)

Pseudotsuga menziesii

Rhododendron sp.

Rosa sp.

Salvia sp.

Thuja occidentalis

In addition, adding the following species and genera to the label can be considered even though there are fewer than three sites because of the breadth of species within one genera treated.

Ilex cornuta

Ilex crenata

Ilex rotunda

Ilex X meserveae

Juniperus chinensis

Juniperus davunica

Juniperus horizontalis

Juniperus squamata

Magnolia grandiflora

Magnolia sieboldi

Magnolia stellata

Magnolia virginiana

Taxus baccata

Taxus densiforma

Viburnum odoratissimum

Viburnum plicatum

Viburnum x pragense

It is also suggested that growers be cautioned not to use F6875 0.3G over the top of the following nine crops: *Buddleia davidii*, *Echinacea sp.*, *Hemerocallis sp.*, *Hosta sp.*, *Iris sp.*, *Lobularia maritima*, *Ophiopogon sp.*, *Phlox paniculata*, and *Phlox subulata*.

Appendix 1: Available Protocol

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, kathie.kalmowitz@basf.com
	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, kathie.kalmowitz@basf.com
	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, bobby_walls@fmc.com
	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, nancy.rechsigl@syngenta.com
	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.

Draft Date: 3/14/07
Revised By: CLP

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Appendix 3: Submitted Data

Researcher reports included in the printed copy of this report are only those received prior to 2/27/08. Reports on following pages are in order by the last name of the researchers for grouped reports and then by PRNumber for those reported on individually.