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**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
Materials and Methods.....	5
Results and Summary .....	5
Phytotoxicity .....	5
Label Suggestions .....	31
Appendix 1: Contributing Researchers.....	32

## 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.	List of F6875 4SC treated crops with no or minimal transitory injury.....	8
Table 6.	List of F6875 4SC treated crops with no or minimal transitory injury seen at the 1X rate, but the 2X or 4X rate did cause significant phytotoxicity. ....	8
Table 7.	List of F6875 4SC treated crops exhibiting significant injury.....	8
Table 9.	Detailed Summary of Crop Safety Testing with F6875 0.3G.....	10
Table 10.	Detailed Summary of Crop Safety Testing with F6875 4SC.....	21

## Abstract

Since 2007 IR-4 has completed 372 trials with products containing sulfentrazone + prodiamine (F6875 0.3G and F6875 4SC) on 92 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. The F6875 0.3G formulation was applied to 75 plant genera or species. Of these crops, 22 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. F6875 4SC was tested on 59 genera or species of which 13 species exhibited little to no injury at all three rates. Thirteen species (*Buddleia davidii*, *Chasmanthium latifolium*, *Dryopteris sp.*, *Echinacea purpurea*, *Forsythia sp.*, *Helianthus sp.*, *Hemerocallis sp.*, *Heuchera sanguinea*, *Hibiscus sp.*, *Hosta sp.*, *Hydrangea sp.*, *Phlox paniculata*, and *Rudbeckia sp.*) demonstrated significant injury even at 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 + prodiamine), and Mesotrione – were chosen for 2007 research activities into level of crop safety on over 100 different plant species. This summary covers the results from F6875 0.3G and F6875 4SC from 2006 through 2016.

## 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. In the 2009 protocol, application rates were identical but only F6875 0.3G was tested. 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 protocols (07-009, 08-010, 09-011, 10-028, 11-024, 12-014, 12-018, 13-014, 14-009, 15-013 and 16-010) at <http://ir4.rutgers.edu/ornamental/OrnamentalDrafts.cfm>

F6875 0.3G and F6875 4SC was supplied to researchers (See list of researchers in Appendix 1) 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 22 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, five plant species 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*, *Phlox subulata*, and *Tsuga heterophylla* (Table 3). For 46 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).

Among crops treated with F6875 4SC, 13 species exhibited no significant phytotoxicity or growth differences (Table 5). Six crops fell into the category of no or minimal transient injury at 1X but showed significant injury at 2X or 4X (Table 6). Thirteen crops demonstrated sufficient damage to recommend growers not utilize F6875 4SC as an over-the-top treatment (Table 7). Twenty-eight genera/species need further evaluation either because only 1 or 2 trials were conducted or because consistent results were not achieved among the research sites (Table 8).

Please see Tables 9 and 10 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>Magnolia sp.</i> <sup>3</sup>
<i>Calamagrostis acutiflora</i>	<i>Miscanthus sinensis</i> (See Regan)
<i>Canna sp.</i>	<i>Picea glauca</i>
<i>Coreopsis sp.</i>	<i>Pseudotsuga menziesii</i>
<i>Cotoneaster sp.</i>	<i>Rhododendron sp.</i>
<i>Dendranthema x morifolium</i>	<i>Rosa sp.</i>
<i>Dianthus gratianopolitanus</i>	<i>Salvia sp.</i>
<i>Festuca ovina glauca</i>	<i>Scabiosa sp.</i>
<i>Gardenia augusta</i>	<i>Thuja occidentalis</i>
<i>Lagerstroemia indica</i>	<i>Thuja orientalis</i>
<i>Loropetalum chinensis</i>	<i>Thuja plicata</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> <sup>1</sup>	<i>Lantana sp.</i>
<i>Buxus sp.</i>	<i>Vinca sp.</i> <sup>2</sup>
<i>Hydrangea macrophylla</i>	

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

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

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

<sup>2</sup> Varied responses may be attributed to cultivar differences

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

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

<i>Berberis thunbergii</i> <sup>2</sup>	<i>Juniperus davunica</i> <sup>3</sup>
<i>Ceanothus victoria</i>	<i>Juniperus horizontalis</i> <sup>3</sup>
<i>Cladrastis sp.</i>	<i>Juniperus squamata</i> <sup>3</sup>
<i>Coreopsis sp.</i>	<i>Larix sp.</i>
<i>Fothergilla gardenii</i>	<i>Liatris spicata</i>
<i>Fraxinus americana</i>	<i>Liriope sp.</i>
<i>Fraxinus pennsylvanica</i>	<i>Muhlenbergia capillaries</i>
<i>Gardenia augusta</i> ‘Radicans’	<i>Petunia sp.</i>
<i>Gardenia japonica</i>	<i>Picea abies</i> <sup>4</sup>
<i>Gaura lindheimeri</i>	<i>Scabiosa sp.</i>
<i>Gleditsia tricanthos</i>	<i>Spiraea sp.</i>
<i>Helianthus microcephalus</i>	<i>Taxodium distichum</i>
<i>Hibiscus syriacus</i>	<i>Taxus baccata</i> <sup>1, 3</sup>
<i>Ilex cornuta</i> <sup>3</sup>	<i>Taxus densiforma</i> <sup>3</sup>
<i>Ilex crenata</i> <sup>3</sup>	<i>Trachycarpus fortunei</i>
<i>Ilex rotunda</i> <sup>3</sup>	<i>Tsuga heterophylla</i> <sup>4</sup>
<i>Ilex X meserveae</i> <sup>3</sup>	<i>Viburnum odoratissimum</i> <sup>3</sup>
<i>Illicium sp.</i>	<i>Viburnum plicatum</i> <sup>3</sup>
<i>Itea virginica</i>	<i>Viburnum x pragense</i> <sup>3</sup>
<i>Juniperus chinensis</i> <sup>3</sup>	

<sup>1</sup> No injury observed in two container trials; in one field trial injury observed at the highest rate.

<sup>2</sup> Varied responses may be attributed to cultivar differences.

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

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

**Table 5. List of F6875 4SC treated crops with no or minimal transitory injury.**

<i>Aloe sp.</i> (see Villavicencio)	<i>Magnolia sp.</i> (See Uber)
<i>Buxus sp.</i>	<i>Ophiopogon sp.</i> (see Gilliam)
<i>Calamagrostis acutiflora</i>	<i>Petunia sp.</i>
<i>Delosperma sp.</i> (see Klett)	<i>Salvia nemorosa</i>
<i>Echinocactus grusonii</i>	<i>Taxodium distichum</i>
<i>Euonymus sp.</i>	<i>Thuja occidentalis</i>
<i>Lagerstroemia indica</i>	

**Table 6. List of F6875 4SC treated crops with no or minimal transitory injury seen at the 1X rate, but the 2X or 4X rate did cause significant phytotoxicity.**

<i>Berberis sp.</i>	<i>Rhododendron sp.</i> (azalea)
<i>Leucanthemum maximum</i>	<i>Rosa sp.</i>
<i>Pennisetum sp.</i>	<i>Sedum sp.</i> <sup>1</sup>

**Table 7. List of F6875 4SC treated crops exhibiting significant injury.**

<i>Buddleia davidii</i>	<i>Heuchera sanguinea</i>
<i>Chasmanthium latifolium</i>	<i>Hibiscus sp.</i>
<i>Dryopteris sp.</i>	<i>Hosta sp.</i>
<i>Echinacea purpurea</i>	<i>Hydrangea macrophylla</i>
<i>Forsythia sp.</i>	<i>Phlox paniculata</i>
<i>Helianthus sp.</i>	<i>Rudbeckia sp.</i>
<i>Hemerocallis sp.</i>	



**Table 8. List of F6875 SC treated crops where more information is needed.**

<i>Agave sp.</i>	<i>Lobularia maritima</i>
<i>Asparagus densiflorus</i>	<i>Malus sp.</i>
<i>Aucuba japonica</i>	<i>Myrica pensylvanica</i>
<i>Cercis canadensis</i>	<i>Paeonia sp.</i>
<i>Chysanthemum/Dendranthemum sp.</i>	<i>Penstemon sp.</i>
<i>Cornus sericea</i>	<i>Philadelphus sp.</i>
<i>Crassula sp.</i>	<i>Picea sp.</i>
<i>Echeveria sp.</i>	<i>Pinus sp.</i>
<i>Echinocactus grusonii</i>	<i>Prunus serotina</i>
<i>Fagus sp.</i>	<i>Quercus sp.</i>
<i>Gardenia sp.</i>	<i>Syringa sp.</i>
<i>Ilex sp.</i>	<i>Viburnum sp.</i>
<i>Kerria japonica</i>	<i>Vinca sp.</i>
<i>Liriope sp.</i> <sup>1</sup>	<i>Washingtonia robusta</i>

<sup>1</sup> Different cultivars and species exhibited a wide range of responses. Further testing is warranted

**Table 9. 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 12/10/2013 are listed below.

PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
26539	Fir, Fraser ( <i>Abies fraseri</i> )	Field In-Ground	Beste/Frank (ARS)	MD	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.
26322	Fir, Fraser ( <i>Abies fraseri</i> )	Field Container	Boydston	WA	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26322	Fir, Fraser ( <i>Abies fraseri</i> )	Field Container	Freiberger	NJ	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
26322	Fir, Fraser ( <i>Abies fraseri</i> )	Field Container	Reding	OH	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; all plants marketable
26322	Fir, Fraser ( <i>Abies fraseri</i> ) 'Roan Mountain'	Field Container	Marshall	MI	2007	Over the top	One application. No injury at 0.375 and 0.75, slight at 1.5 lb ai per acre
26543	Maple, Red ( <i>Acer rubrum</i> )	Field In-Ground	Beste/Frank (ARS)	MD	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.
26196	Maple, Red ( <i>Acer rubrum</i> )	Field Container	Freiberger	NJ	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
26196	Maple, Red ( <i>Acer rubrum</i> ) 'Autumn Blaze'	Field Container	Gilliam	AL	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26285	Barberry ( <i>Berberis</i> sp.) <i>B. thunbergii</i> 'Atropurpurea'	Field Container	Beste/Frank (ARS)	MD	2007	Over the top	No significant injury at 0.375, 0.75 and 1.5 lb ai per acre.
26285	Barberry ( <i>Berberis</i> sp.) <i>B. thunbergii</i> atropurpureum 'Crimson Pygmy'	Field Container	Beste/Frank (ARS)	MD	2008	Over the top	Very slight injury at 0.375, 0.75 and 1.5 lb ai per acre; all plants marketable
26285	Barberry ( <i>Berberis</i> sp.) <i>B. thunbergii</i> 'Crimson Pigmy'	Field Container	Lieth	CA	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
26337	Butterfly Bush ( <i>Buddleia davidii</i> )	Field Container	Uber	CA	2009	Over the top	No significant injury at 0.375, moderate at 0.75 and 1.5 lb ai per acre.
26337	Butterfly Bush ( <i>Buddleia davidii</i> ) 'Purple Emperor'	Field Container	Reding	OH	2007	Over the top	Severe injury at 0.375, 0.75 and 1.5 lb ai per acre
26337	Butterfly Bush ( <i>Buddleia davidii</i> ) 'Royal Red'	Field Container	Fraelich	GA	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.
26337	Butterfly Bush ( <i>Buddleia davidii</i> ) 'White Ball'	Field Container	Marshall	MI	2007	Over the top	One application. Slight injury at 0.375 and 0.75, moderate at 1.5 lb ai per acre
26306	Boxwood ( <i>Buxus</i> sp.) <i>B. microphylla</i> 'Faulkner'	Field Container	Klett	CO	2007	Over the top	Slight injury (stunting and leaf discoloration) only at 1.5 lb ai per acre (4X) in one of two trials

PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
26306	Boxwood ( <i>Buxus</i> sp.) <i>B. sinica</i> var. <i>insularis</i> 'Wintergreen'	Field Container	Neal	NC	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26306	Boxwood ( <i>Buxus</i> sp.) 'Green Velvet'	Field Container	Marshall	MI	2007	Over the top	One application. No injury at 0.375, 0.75 and 1.5 lb ai per acre
26206	Feather Reed Grass ( <i>Calamagrostis acutiflora</i> )	Field Container	Boydston	WA	2007	Over the top	Two sequential applications of F6875 applied 8 weeks apart at 0.375, 0.75, and 1.5 lb ai per acre did not injure young feather reed grass plants. All plants were saleable.
26206	Feather Reed Grass ( <i>Calamagrostis acutiflora</i> )	Field Container	Harvey	WA	2007	Over the top	Very slight injury only at 4X rate (1.5 lb ai per acre)
26206	Feather Reed Grass ( <i>Calamagrostis acutiflora</i> )	Field Container	Trader	MS	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26206	Feather Reed Grass ( <i>Calamagrostis acutiflora</i> ) 'Karl Forester'	Field Container	Klett	CO	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
26431	Canna ( <i>Canna</i> sp.) <i>C. eneralis</i> 'Tropical Yellow'	Field Container	Boydston	WA	2011	Broadcast	Two sequential applications at 0.375 lb, 0.75, and 1.50 lb ai per acre did not injure or affect growth.
26431	Canna ( <i>Canna</i> sp.) <i>C.</i> 'Robert Kent'	Field Container	Derr	VA	2010	Over the top	Echelon G F6875 at 0.375, 0.75, 1.5 lb ai per acre caused no crop injury and shoot and flower stalk count were unaffected. Increasing control of spotted spurge, chamberbitter, and s. crabgrass was observed with increasing rates.
26431	Canna ( <i>Canna</i> sp.) 'Freckle Face'	Field Container	Derr	VA	2011	Broadcast	Little to no crop injury with two applications at 0.375 and 0.75 lb ai per acre. Minor injury with 1.5 lb ai per acre. Plant height decreased as rate increased.
26235	<i>Ceanothus</i> sp. ( <i>Ceanothus</i> sp.) <i>C. victoria</i>	Field Container	Uber	CA	2009	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre.
26248	Hardy Mum ( <i>Chrysanthemum/Dendranthema x morifolium</i> ) 'Sheffield Pink'	Field Container	Czarnota	GA	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26248	Hardy Mum ( <i>Chrysanthemum/Dendranthema x morifolium</i> ) 'Dazzler Stacy'	Field Container	Derr	VA	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
26248	Hardy Mum ( <i>Chrysanthemum/Dendranthema x morifolium</i> ) 'Sunny Gretchen'	Field Container	Gilliam	AL	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26318	Yellowwood ( <i>Cladrastis</i> sp.) <i>C. kentuckea</i>	Field Container	Mathers	OH	2011	Broadcast	No crop injury with two sequential applications at 0.38, 0.75, 1.5 lb ai per acre. Although results were confounded by transplant shock the 2X and 4X had the greatest growth.
26318	Yellowwood ( <i>Cladrastis</i> sp.) <i>C. kentuckea</i>	Field Container	Freiberger	NJ	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
26220	Tickseed ( <i>Coreopsis</i> sp.) 'Baby Sun'	Field Container	Boydston	WA	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

PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
26220	Tickseed ( <i>Coreopsis</i> sp.) <i>C. auriculata</i> 'Nana'	Field Container	Boydston	WA	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
26220	Tickseed ( <i>Coreopsis</i> sp.) <i>C. auriculata</i> 'Nana'	Field Container	Boydston	WA	2010	Over the top	Slight injury at 0.375 and 0.75, moderate at 1.5 lb ai per acre; most plants at 1X and 2X saleable.
26220	Tickseed ( <i>Coreopsis</i> sp.) <i>C. 'Crème Brule'</i>	Field Container	Mathers	MI	2010	Broadcast	Lincoln: No injury with 0.375, 0.75, and 1.5 lb ai per acre.
26220	Tickseed ( <i>Coreopsis</i> sp.) <i>C. 'Moonbeam'</i>	Field Container	Mathers	MI	2010	Broadcast	Zelenka: No injury with 0.375, 0.75, and 1.5 lb ai per acre.
26220	Tickseed ( <i>Coreopsis</i> sp.) <i>C. verticillata</i> 'Moonbeam'	Field Container	Mathers	OH	2010	Over the top	Ohio: Little to no crop injury with 0.375, 0.75 and 1.5 lb ai per acre.
28186	Cotoneaster ( <i>Cotoneaster</i> sp.) <i>C. apiculata</i>	Field Container	Mathers	OH	2009	Over the top	No significant injury at 0.375, 0.75 and 1.5 lb ai per acre; growth reduction at 2X and 4X.
28186	Cotoneaster ( <i>Cotoneaster</i> sp.) <i>C. horizon</i>	Field Container	Freiberger	NJ	2009	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre.
28186	Cotoneaster ( <i>Cotoneaster</i> sp.) <i>C. salicifolius</i> 'Scarlet Leader'	Field Container	Beste/Frank (ARS)	MD	2011	Over the top	No significant injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; no reduction in marketability.
26242	Pinks ( <i>Dianthus</i> sp.) <i>D. gratianopolitanus</i> 'Firewitch'	Field Container	Boydston	WA	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
26242	Pinks ( <i>Dianthus</i> sp.) <i>D. gratianopolitanus</i> 'Firewitch'	Field Container	Mathers	OH	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
26242	Pinks ( <i>Dianthus</i> sp.) <i>D. gratianopolitanus</i> 'Firewitch'	Field Container	Reding	OH	2007	Over the top	No injury or growth reduction at 0.375, unacceptable at 0.75 and 1.5 lb ai per acre
26356	Purple Coneflower ( <i>Echinacea</i> sp.) <i>E. purpurea</i>	Field Container	Klett	CO	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
26356	Purple Coneflower ( <i>Echinacea</i> sp.) <i>E. purpurea</i>	Field Container	Mathers	OH	2007	Over the top	Moderate to significant injury increasing with rate (0.375, 0.75, 1.5 lb ai per acre).
26356	Purple Coneflower ( <i>Echinacea</i> sp.) <i>E. purpurea</i> 'Magnus'	Field Container	Fraelich	GA	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.
26356	Purple Coneflower ( <i>Echinacea</i> sp.) <i>E. purpurea</i> 'Magnus'	Field Container	Reding	OH	2007	Over the top	Severe injury at 0.375, 0.75 and 1.5 lb ai per acre
26209	Blue Fescue ( <i>Festuca ovina glauca</i> )	Field Container	Klett	CO	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
26209	Blue Fescue ( <i>Festuca ovina glauca</i> )	Field Container	Mathers	OH	2007	Over the top	Some browning on the leaves at the 1.5 lb ai per acre rate.
26209	Blue Fescue ( <i>Festuca ovina glauca</i> )	Field Container	Trader	MS	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26209	Blue Fescue ( <i>Festuca ovina glauca</i> ) 'Elijah Blue'	Field Container	Boydston	WA	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
28194	Witch Alder ( <i>Fothergilla gardenii</i> ) <i>F. hybrid</i> 'Mt. Airy'	Field Container	Czarnota	GA	2009	Over the top	No injury at 0.375, moderate at 0.75 and 1.5 lb ai per acre.

PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
26260	Ash ( <i>Fraxinus</i> sp.) <i>F. americana</i>	Field In-Ground	Beste/Frank (ARS)	MD	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
26260	Ash ( <i>Fraxinus</i> sp.) <i>F. pensylvanica</i>	Field In-Ground	Beste/Frank (ARS)	MD	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
26550	Cape Jasmine, Radicans ( <i>Gardenia augusta</i> 'Radicans')	Field Container	Gilliam	AL	2009	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26550	Cape Jasmine, Radicans ( <i>Gardenia augusta</i> 'Radicans')	Field Container	Gilliam	AL	2010	Broadcast	No injury or reduction in growth with one or two applications at 0.375, 0.75, 1.5 lb ai per acre.
26550	Cape Jasmine, Radicans ( <i>Gardenia augusta</i> 'Radicans') <i>G. japonica</i> 'August Beauty'	Field Container	Czarnota	GA	2009	Over the top	No significant injury at 0.375, moderate at 0.75 and 1.5 lb ai per acre.
26245	<i>Gaura</i> ( <i>Gaura lindheimeri</i> )	Field Container	Boydston	WA	2007	Over the top	Two sequential applications of F6875 applied 8 weeks apart at 0.375, 0.75, and 1.5 lb ai per acre significantly injured young <i>gaura</i> plants causing leaf necrosis and stunting. Injury was less severe with the 1X rate of F6875 and some plants were saleable.
26245	<i>Gaura</i> ( <i>Gaura lindheimeri</i> ) 'Siskiyou Pink'	Field Container	Senesac	NY	2009	Over the top	Slight injury at 0.375 and 0.75, moderate at 1.5 lb ai per acre.
26245	<i>Gaura</i> ( <i>Gaura lindheimeri</i> ) 'Whirling Butterflies'	Field Container	Boydston	WA	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
26232	Honey Locust ( <i>Gleditsia</i> sp.) <i>G. tricanthos</i>	Field In-Ground	Beste/Frank (ARS)	MD	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.
26445	Sunflower ( <i>Helianthus</i> sp.) <i>H. microcephalus</i> 'Lemon Queen'	Field Container	Senesac	NY	2009	Over the top	No injury at 0.375, slight at 0.75 and 1.5 lb ai per acre.
26344	Daylily ( <i>Hemerocallis</i> sp.) <i>H. hemerocallis</i> 'Blue Sheen'	Field Container	Reding	OH	2007	Over the top	Severe injury at 0.375, 0.75 and 1.5 lb ai per acre
26344	Daylily ( <i>Hemerocallis</i> sp.) <i>H. hybrida</i> 'Stella D'Oro'	Field Container	Whitwell	SC	2007	Over the top	Slight to moderate injury increasing with rates at 0.38, 0.75 and 1.5 lb ai per acre after 1st application; with recovery.
26344	Daylily ( <i>Hemerocallis</i> sp.) 'Second Glance'	Field Container	Lieth	CA	2007	Over the top	Severe injury after one application at 0.375, 0.75 and 1.5 lb ai per acre
26344	Daylily ( <i>Hemerocallis</i> sp.) 'Stella d'Oro'	Field Container	Wade	SC	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre.
26300	Mallow, Rose Mallow ( <i>Hibiscus</i> sp.) <i>H. rosa-sinensis</i> 'White Wing'	Field Container	Uber	CA	2011	Over the top	Little to no crop injury with two sequential applications at 0.375, 0.75 and 1.5 lb ai per acre. Slight reduction in height 67 DAT.
26300	Mallow, Rose Mallow ( <i>Hibiscus</i> sp.) <i>H. syriacus</i> 'Minerva'	Field Container	Beste/Frank (ARS)	MD	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
26263	<i>Hosta</i> ( <i>Hosta</i> sp.)	Field Container	Harvey	WA	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
26263	<i>Hosta</i> ( <i>Hosta</i> sp.) <i>H. sieboldiana</i>	Field Container	Regan	OR	2007	Over the top	Significant injury but no growth reduction at 0.375, 0.75 and 1.5 lb ai per acre

PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
26263	Hosta (Hosta sp.) H. sieboldiana 'Frances Williams'	Field Container	Reding	OH	2007	Over the top	Moderate to severe injury at 0.375, 0.75 and 1.5 lb ai per acre
26263	Hosta (Hosta sp.) 'Honey Bells'	Field Container	Gilliam	AL	2007	Over the top	Minor to moderate injury at 0.375, 0.75 and 1.5 lb ai per acre
26263	Hosta (Hosta sp.) 'Krossa Regal'	Field Container	Fraelich	GA	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre.
26252	Hydrangea (Hydrangea sp.)	Field Container	Mathers	OH	2007	Over the top	No visible injury at 0.375, 0.75 and 1.5 lb ai per acre, but high rate caused stunting.
26252	Hydrangea (Hydrangea sp.) 'Angel Robe'	Field Container	Lieth	CA	2007	Over the top	Minor injury at 0.375, 0.75 and 1.5 lb ai per acre.
26252	Hydrangea (Hydrangea sp.) H. macrophylla 'Nikko Blue'	Field Container	Czarnota	GA	2007	Over the top	25-33 % injury at 0.375, 0.75 and 1.5 lb ai per acre
26252	Hydrangea (Hydrangea sp.) H. macrophylla 'Nikko Blue'	Field Container	Beste/Frank (ARS)	MD	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.
26252	Hydrangea (Hydrangea sp.) H. macrophylla 'Nikko Blue'	Field Container	Fraelich	GA	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre.
26252	Hydrangea (Hydrangea sp.) H. macrophylla 'Pink Shira'	Field Container	Reding	OH	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; all plants marketable
26252	Hydrangea (Hydrangea sp.) H. macrophyllum 'Endless Summer'	Field Container	DeFrancisco	OR	2011	Broadcast to soil surface	Slight to moderate injury increasing with rates (0.375, 0.75 and 1.5 lb ai per acre); no significant growth reduction.
26252	Hydrangea (Hydrangea sp.) H. macrophylla 'Nikko Blue'	Field Container	Czarnota	GA	2009	Over the top	No injury at 0.375, moderate at 0.75 and 1.5 lb ai per acre.
26333	Holly (Ilex sp.) 'Conaf'	Field Container	Czarnota	GA	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26333	Holly (Ilex sp.) I. cornuta 'Bufordii Nana'	Field Container	Neal	NC	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26333	Holly (Ilex sp.) I. cornuta 'Carissa'	Field Container	Fraelich	GA	2007	Over the top	No significant injury at 0.375, 0.75, and 1.5 lb ai per acre.
26333	Holly (Ilex sp.) I. crenata 'Green Luster'	Field Container	Whitwell	SC	2007	Over the top	No injury or growth reduction at 0.38, 0.75 and 1.5 lb ai per acre
26333	Holly (Ilex sp.) Ilex x meserveae 'Castle Wall'	Field Container	Reding	OH	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre; increased plant growth
26350	Flag (Iris sp.)	Field Container	Harvey	WA	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
26350	Flag (Iris sp.)	Field Container	Mathers	OH	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.
26350	Flag (Iris sp.) I. versicolor	Field Container	Reding	OH	2007	Over the top	Severe injury at 0.375, 0.75 and 1.5 lb ai per acre

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26350	Flag (Iris sp.) 'JJ91-A'	Field Container	Lieth	CA	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
26350	Flag (Iris sp.) 'Yellow Flag'	Field Container	Gilliam	AL	2007	Over the top	Moderate to severe injury at 0.375, 0.75 and 1.5 lb ai per acre
28195	Virginia Sweetspire (Itea virginica)	Field Container	Beste/Frank (ARS)	MD	2011	Over the top	No significant injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; no reduction in marketability.
28195	Virginia Sweetspire (Itea virginica) 'Henry's Garnet'	Field Container	Czarnota	GA	2009	Over the top	No injury at 0.375, moderate at 0.75 and 1.5 lb ai per acre.
26270	Juniper (Juniperus sp.)	Field Container	Harvey	WA	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26270	Juniper (Juniperus sp.)	Field Container	Mathers	OH	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre
26270	Juniper (Juniperus sp.) J. chinensis 'Sea Green'	Field Container	Beste/Frank (ARS)	MD	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
26270	Juniper (Juniperus sp.) J. davunica 'Parsonii'	Field Container	Neal	NC	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26270	Juniper (Juniperus sp.) J. horizontalis 'Youngstown'	Field Container	Regan	OR	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26270	Juniper (Juniperus sp.) J. squamata 'Blue Star'	Field Container	Ahrens/Mervosh	CT	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26341	Crape Myrtle (Lagerstroemia indica)	Field Container	Fraelich	GA	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre.
26341	Crape Myrtle (Lagerstroemia indica)	Field Container	Trader	MS	2007	Over the top	No injury, slight growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26341	Crape Myrtle (Lagerstroemia indica) 'Cordon Blue'	Field Container	Whitwell	SC	2007	Over the top	No injury or growth reduction at 0.38, 0.75 and 1.5 lb ai per acre
26341	Crape Myrtle (Lagerstroemia indica) 'Dynamite'	Field Container	Beste/Frank (ARS)	MD	2007	Over the top	No significant injury at 0.375, 0.75, and 1.5 lb ai per acre.
26341	Crape Myrtle (Lagerstroemia indica) L. x 'Muskogee'	Field Container	Neal	NC	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
26353	Shrub Verbena (Lantana sp.)	Field Container	Harvey	WA	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
26353	Shrub Verbena (Lantana sp.) 'New Gold'	Field Container	Czarnota	GA	2007	Over the top	Slight injury after 1st, none after 2nd application at 0.375, 0.75 and 1.5 lb ai per acre
26353	Shrub Verbena (Lantana sp.) L. camara	Field Container	Klett	CO	2007	Over the top	Two trials; slight injury (leaf discoloration) mainly at 1.5 lb ai per acre (4X); no growth reduction
26353	Shrub Verbena (Lantana sp.) L. x hybrida 'New Gold'	Field Container	Neal	NC	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
28187	Larch (Larix sp.) L. laricina	Field Container	Freiberger	NJ	2009	Over the top	Slight injury at 0.375 and 0.75, moderate at 1.5 lb ai per acre.

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26449	Blazing-Star, Gayfeather (Liatris sp.) L. spicata	Field Container	Klett	CO	2011	Over the top	Trial 1: Hail on 6/8/11. Severe crop injury decreasing with time; dry mass greater for plants treated with 0.375, 0.75, 1.5 lb ai per acre than weedy control although not statistically different. Good of weeds.
26449	Blazing-Star, Gayfeather (Liatris sp.) L. spicata	Field Container	Klett	CO	2011	Over the top	Trial 2: Severe crop injury decreasing with time for plants treated with 0.375, 0.75, 1.5 lb ai per acre; 4x treated plant had significantly greater dry mass than weedy control. Good suppression of weeds.
26449	Blazing-Star, Gayfeather (Liatris sp.) L. spicata 'Kobold'	Field Container	Boydston	WA	2010	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; all treated plants saleable.
26449	Blazing-Star, Gayfeather (Liatris sp.) L. spicata 'Kobold'	Field Container	Boydston	WA	2011	Over the top	Two sequential applications 0.375 lb, 0.75, and 1.50 lb ai per acre did not injure or affect growth.
26434	Lilyturf, Creeping (Liriope sp.)	Field Container	Trader	MS	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
27793	Sweet Alyssum (Lobularia maritima)	Field Container	Fraelich	GA	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.
27793	Sweet Alyssum (Lobularia maritima)	Field Container	Lieth	CA	2008	Over the top	Unacceptable injury and growth effect at 0.375, 0.75 and 1.5 lb ai per acre
27793	Sweet Alyssum (Lobularia maritima)	Field Container	Lieth	CA	2012		No significant injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
26329	Loropetalum (Loropetalum sp.) L. chinense rubrum	Field Container	Czarnota	GA	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26329	Loropetalum (Loropetalum sp.) L. chinense 'Zhuzhou Fuchsia'	Field Container	Whitwell	SC	2007	Over the top	No significant injury or growth reduction at 0.38, 0.75 and 1.5 lb ai per acre
26329	Loropetalum (Loropetalum sp.) L. chinensis 'Ruby'	Field Container	Neal	NC	2007	Over the top	No significant injury at 0.375, 0.75 and 1.5 lb ai per acre
26329	Loropetalum (Loropetalum sp.) 'Ruby'	Field Container	Gilliam	AL	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26314	Magnolia (Magnolia sp.) M. grandiflora	Field Container	Uber	CA	2011	Over the top	No significant injury at 0.375, 0.75 and 1.5 lb ai per acre.
26314	Magnolia (Magnolia sp.) M. sieboldi	Field Container	Freiberger	NJ	2007	Over the top	No significant injury at 0.375, 0.75 and 1.5 lb ai per acre
26314	Magnolia (Magnolia sp.) M. stellata 'Centennial'	Field Container	Beste/Frank (ARS)	MD	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
26314	Magnolia (Magnolia sp.) M. virginiana	Field Container	Fraelich	GA	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre.
26314	Magnolia (Magnolia sp.) 'Victoria'	Field Container	Gilliam	AL	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26212	Silver Grass (Miscanthus sp.)	Field Container	Trader	MS	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre; some stunting
26212	Silver Grass (Miscanthus sp.) M. sinensis 'Graziella'	Field Container	Mathers	OH	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre



PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
26212	Silver Grass (Miscanthus sp.) M. sinensis 'Purpurascens'	Field Container	Boydston	WA	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
26212	Silver Grass (Miscanthus sp.) M. sinensis 'Purpurascens'	Field Container	Regan	OR	2007	Over the top	No injury at 0.375, visible injury after the 2nd application at 0.75 and 1.5 lb ai per acre; no growth reduction
28198	Muhly, hairyawn (Muhlenbergia capillaris)	Field Container	Uber	CA	2009	Over the top	No significant injury at 0.375 and 0.75, slight at 1.5 lb ai per acre.
26437	Mondo Grass, Lilyturf, Ker- Gawl (Ophiopogon sp.)	Field Container	Trader	MS	2007	Over the top	Significant injury and growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26437	Mondo Grass, Lilyturf, Ker- Gawl (Ophiopogon sp.) O. japonicus	Field Container	Lieth	CA	2008	Over the top	Light, acceptable injury at 0.375, unacceptable at 0.75 and 1.5 lb ai per acre; no growth reduction
26347	Petunia (Petunia sp.)	Field Container	Fraelich	GA	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.
26347	Petunia (Petunia sp.)	Field Container	Harvey	WA	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26347	Petunia (Petunia sp.) P. hybrida	Field Container	Reding	OH	2007	Over the top	Moderate to severe injury at 0.375, 0.75 and 1.5 lb ai per acre
26215	Phlox, Perennial (Phlox paniculata)	Field Container	Boydston	WA	2007	Over the top	Two sequential applications of F6875 applied 8 weeks apart at 0.375, 0.75, and 1.5 lb ai per acre significantly injured young perennial phlox plants but did not reduce final plant height or width. F6875 treatments did not appear to affect flowering of per
26217	Creeping Phlox, Moss Pink (Phlox subulata)	Field Container	Boydston	WA	2007	Over the top	Two sequential applications of F6875 applied 8 weeks apart at 0.75, and 1.5 lb ai per acre significantly stunted young creeping phlox plants and caused some leaf necrosis. Plants treated with two applications of F6875 at 0.375 lb ai per acre were not sign
26217	Creeping Phlox, Moss Pink (Phlox subulata)	Field Container	Harvey	WA	2007	Over the top	Slight injury (chlorosis) only at 4X rate (1.5 lb ai per acre)
26217	Creeping Phlox, Moss Pink (Phlox subulata) 'Emerald Blue	Field Container	Reding	OH	2007	Over the top	Severe injury at 0.375, 0.75 and 1.5 lb ai per acre
26544	Spruce (Picea sp.) P. abies	Field In- Ground	Beste/Frank (ARS)	MD	2007	Over the top	Extensive injury (43-98 %) at 0.375, 0.75 and 1.5 lb ai per acre; treated plants not marketable.
26544	Spruce (Picea sp.) P. abies	Field In- Ground	Beste/Frank (ARS)	MD	2008	Over the top	Severe injury at 0.375, 0.75 and 1.5 lb ai per acre.
26293	Spruce (Picea sp.) P. glauca	Field Container	Freiberger	NJ	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26293	Spruce (Picea sp.) P. glauca	Field Container	Freiberger	NJ	2009	Over the top	No injury at 0.375 and 0.75, very slight at 1.5 lb ai per acre.
26293	Spruce (Picea sp.) P. glauca 'Conica'	Field Container	Mathers	OH	2009	Over the top	No significant injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26224	Fir, Douglas (Pseudotsuga menziesii)	Field Container	Boydston	WA	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre

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26224	Fir, Douglas (Pseudotsuga menziesii) 'Blue'	Field Container	Marshall	MI	2007	Over the top	One application. No injury at 0.375, slight at 0.75 and 1.5 lb ai per acre
26224	Fir, Douglas (Pseudotsuga menziesii) P. menziesii glauca	Field Container	Freiberger	NJ	2007	Over the top	No significant injury at 0.375, 0.75 and 1.5 lb ai per acre
26289	Azalea (Rhododendron sp.) 'Amelia Rose'	Field Container	Gilliam	AL	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26289	Azalea (Rhododendron sp.) 'Fashion'	Field Container	Fraelich	GA	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre.
26289	Azalea (Rhododendron sp.) R. simsii 'Red Ruffle'	Field Container	Gilliam	AL	2011	Broadcast	No crop injury or reduction in growth with 0.375, 0.75, or 1.5 lb ai per acre.
26289	Azalea (Rhododendron sp.) 'Tradition'	Field Container	Czarnota	GA	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre.
26289	Azalea (Rhododendron sp.) 'Vulcan'	Field Container	Regan	OR	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26366	Rose (Rosa sp.) 'Nearly Wild'	Field Container	Czarnota	GA	2007	Over the top	Virtually no injury at 0.375, 0.75 and 1.5 lb ai per acre
26366	Rose (Rosa sp.) 'Flower Carpet Red'	Field Container	Neal	NC	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26366	Rose (Rosa sp.) 'Nearly Wild'	Field Container	Lieth	CA	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26366	Rose (Rosa sp.) R. meidomonac 'Bonica'	Field Container	Boydston	WA	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
26203	Sage, Ramona (Salvia sylvestris) 'May Night'	Field Container	Klett	CO	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
26203	Sage, Ramona (Salvia sylvestris) S. farinaceae 'Victoria Blue'	Field Container	Beste/Frank (ARS)	MD	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.
26203	Sage, Ramona (Salvia sylvestris) S. nemorosa 'Cardonna'	Field Container	Derr	VA	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
26203	Sage, Ramona (Salvia sylvestris) 'Snow Hill'	Field Container	Boydston	WA	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
26303	Pincushion Flower (Scabiosa sp.)	Field Container	Harvey	WA	2007	Over the top	Variable injury (none to severe) at all treatments including untreated Check
26303	Pincushion Flower (Scabiosa sp.) S japonica 'Ritz Blue'	Field Container	Boydston	WA	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26303	Pincushion Flower (Scabiosa sp.) S. columbaria 'Pink Mist'	Field Container	Boydston	WA	2010	Over the top	No significant injury or growth and flower number reduction at 0.375, 0.75 and 1.5 lb ai per acre; all treated plants saleable.

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26303	Pincushion Flower (Scabiosa sp.) S. columbaria 'Pink Mist'	Field Container	Klett	CO	2011	Over the top	Trial 1: No crop injury with significantly greater dry mass in plants treated with 0.375, 0.75, or 1.5 lb ai per acre compared to the weedy control. Effective control of <i>Cyperus esculentus</i> , <i>Echinochloa crus-galli</i> , <i>Setaria pumila</i> , <i>Sonchus oleraceus</i> , and <i>Ta</i>
26303	Pincushion Flower (Scabiosa sp.) S. columbaria 'Pink Mist'	Field Container	Klett	CO	2011	Over the top	Trial 2: No crop injury with significantly greater dry mass in plants treated with 2x and 4x ( 0.75, or 1.5 lb ai per acre) compared to the weedy control. Effective control of <i>Cyperus esculentus</i> , <i>Echinochloa crus-galli</i> , <i>Setaria pumila</i> , <i>Sonchus oleraceus</i> ,
26281	Bridal-Wreath ( <i>Spiraea</i> sp.) S. <i>prunifolia</i>	Field Container	Freiberger	NJ	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
26281	Bridal-Wreath ( <i>Spiraea</i> sp.) <i>Spiraea</i> x <i>bumalda</i> 'Gold Mound'	Field Container	Ahrens/Mer vosh	CT	2007	Over the top	Very minor injury at 0.375 and 0.75, slight at 1.5 lb ai per acre
26555	Bald Cypress ( <i>Taxodium distichum</i> )	Field In-Ground	Beste/Frank (ARS)	MD	2011	Over the top	Phyto ratings with 0.375, 0.75 and 1.5 lb ai per acre unreliable due to environmental stress.
26555	Bald Cypress ( <i>Taxodium distichum</i> )	Field In-Ground	Czarnota	GA	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre
26310	Yew ( <i>Taxus</i> sp.) <i>T. baccata</i> 'Repandens'	Field Container	Beste/Frank (ARS)	MD	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.
26310	Yew ( <i>Taxus</i> sp.) <i>T. baccata</i> <i>fasigata</i>	Field Container	Freiberger	NJ	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26310	Yew ( <i>Taxus</i> sp.) <i>T. densiforma</i>	Field Container	Fraelich	GA	2007	Over the top	No injury at 0.375, 0.75, and 1.5 lb ai per acre.
26228	Cedar, Western Red ( <i>Thuja plicata</i> )	Field Container	Boydston	WA	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26228	Cedar, Western Red ( <i>Thuja plicata</i> )	Field Container	Boydston	WA	2010	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre; all treated plants saleable.
26228	Cedar, Western Red ( <i>Thuja plicata</i> )	Field Container	DeFrancesc o	OR	2011	Broadcast to soil surface	No injury or significant growth reduction with 0.375, 0.75 and 1.5 lb ai per acre.
26228	Cedar, Western Red ( <i>Thuja plicata</i> ) <i>T. plicata</i> 'Green Giant'	Field Container	Gilliam	AL	2010	Broadcast	No injury or reduction in growth with one or two applications at 0.375, 0.75, 1.5 lb ai per acre.
26277	Arborvitae ( <i>Thuja</i> sp.)	Field Container	Mathers	OH	2007	Over the top	No injury at 0.372, 0.75, and 1.5 lb ai per acre.
26277	Arborvitae ( <i>Thuja</i> sp.) <i>T. occidentalis</i> 'Emerald Green'	Field Container	Ahrens/Mer vosh	CT	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26277	Arborvitae ( <i>Thuja</i> sp.) <i>T. occidentalis</i> 'Emerald Green'	Field Container	Lieth	CA	2007	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26277	Arborvitae ( <i>Thuja</i> sp.) <i>T. orientalis</i>	Field Container	Uber	CA	2011	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre
26277	Arborvitae ( <i>Thuja</i> sp.) <i>T. orientalis</i> 'Green Giant'	Field Container	Gilliam	AL	2009	Over the top	No injury or growth reduction at 0.375, 0.75 and 1.5 lb ai per acre

PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
26277	Arborvitae (Thuja sp.) T. orientalis 'Green Giant'	Field Container	Neal	NC	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26666	Hemlock, Western (Tsuga heterophylla)	Field In-Ground	Beste/Frank (ARS)	MD	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. good weed efficacy. Phyto in all plots at end of trial including control due to environmental conditions.
26666	Hemlock, Western (Tsuga heterophylla)	Field In-Ground	Beste/Frank (ARS)	MD	2008	Over the top	Moderate to severe injury increasing with rate (0.375, 0.75 and 1.5 lb ai per acre). All treated plants unmarketable.
26256	Arrowwood (Viburnum sp.) V. odoratissimum	Field Container	Neal	NC	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26256	Arrowwood (Viburnum sp.) V. opulus	Field Container	Regan	OR	2007	Over the top	No injury to very slight injury at 0.375 and 0.75, but growth reduction at 1.5 lb ai per acre with little visible injury
26256	Arrowwood (Viburnum sp.) V. plicatum 'Shasta'	Field Container	Ahrens/Mer vosh	CT	2007	Over the top	No significant injury at 0.375, 0.75 and 1.5 lb ai per acre
26256	Arrowwood (Viburnum sp.) V. plicatum 'Shoshoni'	Field Container	Beste/Frank (ARS)	MD	2007	Over the top	No significant injury at 0.375, 0.75, and 1.5 lb ai per acre.
26256	Arrowwood (Viburnum sp.) V. x pragense	Field Container	Neal	NC	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26296	Periwinkle (Vinca sp.)	Field Container	Boydston	WA	2007	Over the top	Two sequential applications of F6875 applied 8 weeks apart at 0.375, 0.75, and 1.5 lb ai per acre significantly injured young periwinkle plants and caused some leaf necrosis and stunting. All treated except for possibly two plants were saleable.
26296	Periwinkle (Vinca sp.) 'Pinkstar'	Field Container	Wade	SC	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26296	Periwinkle (Vinca sp.) V. minor	Field Container	Freiberger	NJ	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
26296	Periwinkle (Vinca sp.) V. minor 'Bowles'	Field Container	Lieth	CA	2007	Over the top	No significant injury or growth effect at 0.375, 0.75 and 1.5 lb ai per acre
26296	Periwinkle (Vinca sp.) V. minor 'Ralph Shubert'	Field Container	Reding	OH	2007	Over the top	Moderate to severe injury at 0.375, 0.75 and 1.5 lb ai per acre

**Table 10. 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 12/12/2016 are listed below.

PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
31323	Agave (Agave sp.) A. attenuata x A. ocahui 'Blue Glow'	Field Container	Wilén	CA	2015	Over the top	No significant injury with 12 and 24, moderate with 48, fl oz per acre applied twice; no significant growth reduction.
31323	Agave (Agave sp.) 'Blue Flame'	Field Container	Villavicencio	CA	2012	Over the top	Slight to moderate necrosis increasing with rates ( 0.375, 0.75 and 1.5 lb ai per acre) applied twice, slight discoloration and spotting at 2X and 4X; no growth reduction.
31322	Barbados Aloe (Aloe sp.) A. brevifolia	Field Container	Villavicencio	CA	2013	Over the top	Minor injury (necrosis and leaf splitting) with 0.375 and 0.75, severe with 1.5 lb ai, per acre applied twice; no growth reduction.
31322	Barbados Aloe (Aloe sp.) 'Blue Elf'	Field Container	Villavicencio	CA	2012	Over the top	No injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31322	Barbados Aloe (Aloe sp.) 'Little Gator'	Field Container	Wilén	CA	2014	Over the top	No significant injury with 12 fl oz per acre, slight with 24 and 48 fl oz; no significant growth reduction at all rates.
32952	Fern, Sprengeri (Asparagus densiflorus)	Field Container	Rivera	PR	2014	Over the top	No significant injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
30977	Aucuba (Aucuba sp.)	Field Container	Uber	CA	2014	Over the top	Data not viable due to heat stress on plants.
30977	Aucuba (Aucuba sp.) A. japonica 'Gold Dust'	Field Container	Czarnota	GA	2013	Over the top	Inconclusive results due to variable injury from treatments, including untreated check.
30977	Aucuba (Aucuba sp.) A. japonica 'Variegata'	Field Container	Beste/Frank (ARS)	MD	2012	Over the top	Moderate growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; sun damage caused foliar necrosis to all treatments including untreated check.
30977	Aucuba (Aucuba sp.) A. japonica 'Variegata'	Field Container	Pemberton	TX	2012	Over the top	Moderate injury and stunting with 0.3275, 0.75 and 1.5 lb ai per acre applied twice.
30978	Barberry (Berberis sp.)	Field Container	Freiberger	NJ	2012	Over the top	Inconclusive results because plants died off early in both treated and control plants.
30978	Barberry (Berberis sp.) B. thunbergii 'Rosy Glow'	Field Container	Beste/Frank (ARS)	MD	2012	Over the top	No injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; no reduction in marketability.
30978	Barberry (Berberis sp.) 'Concorde'	Field Container	Jones	OH	2012	Over the top	Minor injury with 0.375, moderate with 0.75 and 1.5, lb ai per acre applied twice; no growth reduction.
30978	Barberry (Berberis sp.) 'Crymson Pygmy'	Field Container	Mathers (OSU)	MI	2012	Over the top	Slight to moderate injury with virtually complete recovery at 0.375, 0.75 and 1.5 lb ai per acre applied twice.
27677	Butterfly Bush (Buddleia davidii) B. davidii 'Black night'	Field Container	Mathers (OSU)	OH	2010	Over the top	Severe injury and mortality with 0.375, 0.75, and 1.5 lb ai per acre.
27677	Butterfly Bush (Buddleia davidii) B. japonica 'Petite Plum'	Field Container	Czarnota	GA	2009	Over the top	Slight injury at 0.375 and 0.75, severe at 1.5 lb ai per acre.
27677	Butterfly Bush (Buddleia davidii) 'Black Night'	Field Container	Boydston	WA	2010	Over the top	Two sequential applications of F6875 4SC applied 6 weeks apart at 0.375, 0.75, and 1.5 lb ai/A significantly injured and stunted growth of butterfly bush plants.

PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
27677	Butterfly Bush ( <i>Buddleia davidii</i> ) 'Nanho Purple'	Field Container	Wade	SC	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
27677	Butterfly Bush ( <i>Buddleia davidii</i> ) 'Royal Red'	Field Container	Beste/Frank (ARS)	MD	2011	Over the top	Unacceptable injury and growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
30979	Boxwood ( <i>Buxus</i> sp.) B. <i>Macrophylla japonica</i> 'Winter Gem'	Field Container	Fraelich	GA	2013	Over the top	Very slight injury (leaf burn) with complete recovery with 0.375, 0.75 and 1.5 lb ai per acre applied twice; slight stunting; all plants marketable.
30979	Boxwood ( <i>Buxus</i> sp.) B. <i>microphylla</i> 'Green Mountain'	Field Container	Beste/Frank (ARS)	MD	2012	Over the top	Slight injury and no growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; no reduction in marketability.
30979	Boxwood ( <i>Buxus</i> sp.) B. <i>sempervirens</i> 'Vardar'	Field Container	Mathers (OSU)	OH	2013	Over the top	Slight injury with 100 and 200, moderate with 400 lb per acre.
30979	Boxwood ( <i>Buxus</i> sp.) 'Green Prince'	Field Container	Jones	OH	2012	Over the top	No injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
30979	Boxwood ( <i>Buxus</i> sp.) 'Wintergem'	Field Container	Mathers (OSU)	OH	2012	Over the top	Virtually no injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice; comparable to untreated check.
31075	Feather Reed Grass ( <i>Calamagrostis acutiflora</i> )	Field Container	Mansue	NJ	2013	Over the top	Moderate injury with complete recovery at 0.375, 0.75 and 1.5 lb ai per acre applied twice; no growth reduction.
31075	Feather Reed Grass ( <i>Calamagrostis acutiflora</i> ) C. <i>acutiflora</i> 'Overdam'	Field Container	Senesac	NY	2013	Over the top	No injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31075	Feather Reed Grass ( <i>Calamagrostis acutiflora</i> ) 'Overdam'	Field Container	Klett	CO	2014	Over the top	No injury with 0.38, 0.75 and 1.5 lb ai per acre applied twice; slight growth reduction with 2X and 4X.
31075	Feather Reed Grass ( <i>Calamagrostis acutiflora</i> ) 'Overdam'	Field Container	Senesac	NY	2013	Over the top	No injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31617	Red Bud, Eastern ( <i>Cercis canadensis</i> )	Field In-Ground	Beste/Frank (NER)	MD	2013	Over the top	Moderate injury with complete recovery at 0.375, 0.75 and 1.5 lb ai per acre applied twice; some height reduction; no reduction in marketability.
31076	Northern Sea Oats, Wild Oats ( <i>Chasmanthium latifolium</i> )	Field Container	Hanson	CA	2013	Over the top	Slight to moderate initial injury (leaf necrosis) with almost complete recovery with 2.75, 5.5 and 11 lb ai per acre; no growth reduction.
31076	Northern Sea Oats, Wild Oats ( <i>Chasmanthium latifolium</i> )	Field Container	Mansue	NJ	2013	Over the top	Severe injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31076	Northern Sea Oats, Wild Oats ( <i>Chasmanthium latifolium</i> )	Field Container	Senesac	NY	2013	Over the top	No injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31076	Northern Sea Oats, Wild Oats ( <i>Chasmanthium latifolium</i> )	Field Container	Wilen	CA	2014	Over the top	Moderate to high injury with 12, 24 and 48 fl oz per acre applied twice.
30981	Chrysanthemum, Garden ( <i>Chrysanthemum/Dendranthema</i> sp.) C./D. x <i>morifolium</i>	Field Container	Derr	VA	2013	Over the top	Slight injury but no flower rating reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31616	Dogwood, Red Osier ( <i>Cornus sericea</i> )	Field In-Ground	Beste/Frank (NER)	MD	2013	Over the top	Data not reliable because of severe injury to all treatments, including Control, due to adverse flooding conditions.
31077	Stonecrop ( <i>Crassula</i> sp.) C. <i>ovata</i>	Field Container	Villavicencio	CA	2012	Over the top	Slight necrosis and discoloration with 0.375, 0.75 and 1.5 lb ai per acre applied twice; no growth reduction.

PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
31077	Stonecrop (Crassula sp.) C. ovata 'Hobbit'	Field Container	Villavicencio	CA	2013	Over the top	Slight to moderate chlorosis and necrosis increasing with rates (0.375, 0.75 and 1.5 lb ai per acre) applied twice; no growth reduction.
30982	Delosperma sp. (Delosperma sp.)	Field Container	Reding	OH	2012	Over the top	No injury and no significant difference in growth or marketability at 0.375, 0.75 and 1.5 lb ai per acre applied twice.
30982	Delosperma sp. (Delosperma sp.) D. cooperi	Field Container	Derr	VA	2013	Over the top	Minor injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice; slight flower count reduction at 2X and 4X.
30982	Delosperma sp. (Delosperma sp.) D. cooperi 'Cooperi'	Field Container	Boydston	WA	2012	Over the top	No injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; all plants saleable.
30982	Delosperma sp. (Delosperma sp.) D. nubigenum	Field Container	Klett	CO	2012	Over the top	Slight to moderate injury and growth reduction increasing with rates (0.375, 0.75 and 1.5 lb ai per acre) applied twice.
30982	Delosperma sp. (Delosperma sp.) D. nubigenum 'Basutoland'	Field Container	Senesac	NY	2013	Over the top	No injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
30982	Delosperma sp. (Delosperma sp.) 'Fire Spinner'	Field Container	Derr	VA	2013	Over the top	Minor injury with complete recovery at 0.375, 0.75 and 1.5 lb ai per acre applied twice.
30715	Fern, Shaggy Shield (Dryopteris sp.)	Field Container	Peachey	OR	2013	Over the top	Slight to moderate injury increasing with rates (0.375, 0.75 and 1.5 lb ai per acre) applied twice; slight growth reduction at 4X.
30715	Fern, Shaggy Shield (Dryopteris sp.) D. atrata	Field Container	Neal	NC	2013	Over the top	Severe injury (foliar necrosis) with 0.375, 0.5 and 1.5 lb ai per acre applied once.
30715	Fern, Shaggy Shield (Dryopteris sp.) D. erythrosora	Field Container	Senesac	NY	2013	Over the top	Minor to severe injury increasing with rates (0.375, 0.75 and 1.5 lb ai per acre) applied twice.
30715	Fern, Shaggy Shield (Dryopteris sp.) D. erythrosora 'Brilliance'	Field Container	Neal	NC	2013	Over the top	Severe injury (foliar necrosis) with 0.375, 0.5 and 1.5 lb ai per acre applied twice.
31204	Echeveria sp. (Echeveria sp.) 'Imbricata'	Field Container	Villavicencio	CA	2012	Over the top	Slight necrosis and discoloration with 0.375, moderate with 0.75 and 1.5 lb ai per acre, applied twice; no growth reduction.
27678	Purple Coneflower (Echinacea sp.) 'Double Decker'	Field Container	Boydston	WA	2010	Over the top	Two sequential applications of F6875 4SC applied 6 weeks apart at 0.375, 0.75, and 1.5 lb ai per acre significantly injured and stunted purple coneflower plants.
27678	Purple Coneflower (Echinacea sp.) E. purpurea	Field Container	Mathers (OSU)	MI	2010	Over the top	Zelenka: Moderate to severe crop injury (45-84%) with 0.375, 0.75, and 1.5 lb ai per acre.
27678	Purple Coneflower (Echinacea sp.) E. purpurea 'Bravado	Field Container	Mathers (OSU)	OH	2010	Over the top	Ohio: Severe crop injury (60-98%) with 0.375 - 1.5 lb ai per acre.
27678	Purple Coneflower (Echinacea sp.) E. purpurea 'White Satin'	Field Container	Mathers (OSU)	MI	2010	Over the top	Lincoln: Severe crop injury (74-100%) with 0.375, 0.75, and 1.5 lb ai per acre.
27678	Purple Coneflower (Echinacea sp.) 'Magnus'	Field Container	Wade	SC	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
31205	Echinocactus grusonii (Echinocactus grusonii)	Field Container	Uber	CA	2014	Over the top	No injury at 12, 24, and 48 fl oz per acre.
31205	Echinocactus grusonii (Echinocactus grusonii)	Field Container	Villavicencio	CA	2012	Over the top	Virtually no injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre, applied twice.

PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
31205	Echinocactus grusonii (Echinocactus grusonii)	Field Container	Villavicencio	CA	2013	Over the top	No injury or growth reduction with 0.375, very slight with 0.75 and 1.5, lb ai per acre applied twice.
30983	Euonymus (Euonymus sp.)	Field Container	Reding	OH	2012	Over the top	No injury and no significant difference in growth or marketability at 0.375, 0.75 and 1.5 lb ai per acre applied twice.
30983	Euonymus (Euonymus sp.) 'Emerald and Gold'	Field Container	Mathers (OSU)	MI	2012	Over the top	BFN Nursery. No injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
30983	Euonymus (Euonymus sp.) 'Emerald and Gold'	Field Container	Mathers (OSU)	MI	2012	Over the top	Northland Farms. No injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31404	Beech (Fagus sp.) F. grandifolia	Field Container	Peachey	OR	2013	Over the top	Phytotoxicity determination inconclusive; no growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31404	Beech (Fagus sp.) F. grandifolia	Field Container	Persad	OH	2014	Over the top	No significant injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31404	Beech (Fagus sp.) F. sylvatica	Field Container	DeFrancesco	OR	2014	Over the top	Results not reliable.
31404	Beech (Fagus sp.) F. sylvatica	Field Container	Jones	OH	2013	Over the top	Slight injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice; no growth reduction.
31078	Golden Bells (Forsythia sp.)	Field Container	Mansue	NJ	2013	Over the top	Severe injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31078	Golden Bells (Forsythia sp.) Forsythia x intermedia	Field Container	Gilliam	AL	2015	Over the top	Slight initial injury with complete recovery with 12, 24 and 48 fl oz per acre applied twice; no growth reduction.
31078	Golden Bells (Forsythia sp.) 'Lynwood Gold'	Field Container	Uber	CA	2015	Over the top	Moderate to severe injury increasing with rates (0.375, 0.75 and 1.5 lb ai per acre) applied twice.
26551	Jasmine, Cape, Common Gardenia (Gardenia sp.) G. japonica 'August Beauty'	Field Container	Czarnota	GA	2009	Over the top	No significant injury at 0.375, moderate at 0.75 and 1.5 lb ai per acre.
26551	Jasmine, Cape, Common Gardenia (Gardenia sp.) G. veitchii	Field Container	Uber	CA	2012	Over the top	No injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31887	Sunflower (Helianthus sp.)	Field Container	Lieth	CA	2012	Over the top	Severe injury injury and growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
30984	Daylily (Hemerocallis sp.)	Field Container	Boydston	WA	2013	Over the top	Minor injury with 0.375, moderate with 0.75 and 1.5, lb ai per acre after 2nd application; 1X plants marketable.
30984	Daylily (Hemerocallis sp.)	Field Container	Reding	OH	2012	Over the top	Moderate to severe injury and growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; treated plants not marketable.
30984	Daylily (Hemerocallis sp.)	Field Container	Rivera	PR	2014	Over the top	Minor initial injury with good recovery at 0.375, 0.75 and 1.5 lb ai per acre applied twice.
30984	Daylily (Hemerocallis sp.) 'Stella de Oro'	Field Container	Beste/Frank (ARS)	MD	2012	Over the top	Moderate injury with good recovery and no growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; potential reduction in marketability at 2X and 4X due to reduced early flowering.
30984	Daylily (Hemerocallis sp.) 'Stella d'Oro'	Field Container	Mathers (OSU)	MI	2012	Over the top	Severe injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.



PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
30716	Coral Bells, Alumroot (Heuchera sanguinea)	Field Container	Reding	OH	2012	Over the top	Moderate to severe injury and growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; treated plants not marketable.
30716	Coral Bells, Alumroot (Heuchera sanguinea) H. micrantha 'Palace Purple'	Field Container	Neal	NC	2012	Over the top	Moderate injury (leaf necrosis, reduced growth) with some recovery at 0.375, 0.75 and 1.5 lb ai per acre with 2 applic.
30716	Coral Bells, Alumroot (Heuchera sanguinea) Ruby Bells'	Field Container	Beste/Frank (ARS)	MD	2012	Over the top	Moderate to severe injury increasing with rates (0.375, 0.75 and 1.5 lb ai per acre) applied twice.
30681	Rosemallow (Hibiscus sp.)	Field Container	Rivera	PR	2014	Over the top	Minor initial injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice; good recovery with 1X and 2X.
30681	Rosemallow (Hibiscus sp.)	Field Container	Uber	CA	2011	Over the top	Unacceptable crop injury (severe necrosis to young growth) with two sequential applications at 0.375, 0.75 and 1.5 lb ai per acre.
30681	Rosemallow (Hibiscus sp.) H. moscheutos 'Luna Red'	Field Container	Boydston	WA	2012	Over the top	Slight to moderate injury with 0.375 and 0.75, moderate with 1.5 lb ai per acre applied twice; some 4X plants not saleable.
30687	Hosta (Hosta sp.)	Field Container	Reding	OH	2012	Over the top	Severe injury and growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; treated plants not marketable.
30687	Hosta (Hosta sp.) H. fortunei 'Francee'	Field Container	Fraelich	GA	2013	Over the top	Severe injury and growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
30687	Hosta (Hosta sp.) 'Hadspen Blue'	Field Container	Boydston	WA	2012	Over the top	Moderate injury but no growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; some treated plants saleable.
30687	Hosta (Hosta sp.) 'Pineapple Upside Down'	Field Container	Neal	NC	2012	Over the top	Mild to moderate injury (leaf discoloration, reduced growth) with 0.375, 0.75 and 1.5 lb ai per acre with 2 applic.
27679	Hydrangea (Hydrangea sp.)	Field Container	Rivera	PR	2014	Over the top	Minor injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
27679	Hydrangea (Hydrangea sp.) H. 'Annabelle'	Field Container	Mathers (OSU)	OH	2010	Over the top	Ohio: Severe crop injury (69-100%) with 0.375- 1.5 lb ai per acre.
27679	Hydrangea (Hydrangea sp.) H. macrophylla 'All Summer Beauty'	Field Container	Mathers (OSU)	MI	2010	Over the top	Lincoln: Severe crop injury with 0.375, 0.75, and 1.5 lb ai per acre.
27679	Hydrangea (Hydrangea sp.) H. macrophylla 'Endless Summer'	Field Container	Wade	SC	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
27679	Hydrangea (Hydrangea sp.) H. macrophylla 'Mini Penny'	Field Container	Mathers (OSU)	MI	2010	Over the top	Zelenka: Severe injury with 0.375, 0.75, and 1.5 lb ai per acre.
27679	Hydrangea (Hydrangea sp.) H. macrophylla 'Nikko Blue'	Field Container	Beste/Frank (ARS)	MD	2011	Over the top	High injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice; growth reduction at 2X and 4X; marketability severely reduced at all rates.
31079	Holly (Ilex sp.)	Field Container	Mansue	NJ	2013	Over the top	Severe injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31079	Holly (Ilex sp.) I. cornuta	Field Container	Uber	CA	2013	Over the top	No injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31079	Holly (Ilex sp.) I. cornuta 'Carissa'	Field Container	Gilliam	AL	2014	Over the top	No injury or growth reduction with 12, 24 and 48 fl oz per acre applied twice; all plants marketable.
31079	Holly (Ilex sp.) I. crenata 'Sky Pencil'	Field Container	DeFrancesco	OR	2015	Over the top	No injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.

PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
31080	Japanese Kerria, Japanese Rose (Kerria japonica) K. japonica 'Pleniflora'	Field Container	Senesac	NY	2013	Over the top	Minor injury with complete recovery at 0.375, moderate injury with some recovery at 0.75 and 1.5, lb ai per acre applied twice.
27680	Crape Myrtle (Lagerstroemia indica) 'Catawea'	Field Container	Wade	SC	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
27680	Crape Myrtle (Lagerstroemia indica) 'Tuscador'	Field Container	Koivunen	CA	2015	Over the top	Slight injury and growth reduction with 12, 24 and 48 fl oz per acre applied twice.
27680	Crape Myrtle (Lagerstroemia indica) 'Tuscarora'	Field Container	Gilliam	AL	2015	Over the top	No injury or growth reduction with 12, 24 and 48 fl oz per acre applied twice.
31081	Shasta Daisy (Leucanthemum maximum) 'Alaska'	Field Container	Derr	VA	2013	Over the top	Minor to moderate injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31081	Shasta Daisy (Leucanthemum maximum) L. x superbum 'Becky'	Field Container	DeFrancesco	OR	2014	Over the top	Moderate injury with complete recovery at 12 fl oz per acre applied twice; severe injury with 24 and 48 fl oz.
31081	Shasta Daisy (Leucanthemum maximum) L. x superbum 'Becky'	Field Container	Senesac	NY	2013	Over the top	Minor injury with 0.375 and 0.75, moderate with 1.5, lb ai per acre applied twice.
30925	Lilyturf, Creeping (Liriope sp.) L. gigantea	Field Container	Uber	CA	2012	Over the top	No injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
30925	Lilyturf, Creeping (Liriope sp.) L. muscari 'Big Blue'	Field Container	Czarnota	GA	2012	Over the top	No injury with 0.375, slight with 0.75 and moderate with 1.5 lb ai per acre applied twice; no height reduction.
30925	Lilyturf, Creeping (Liriope sp.) L. spicata	Field Container	Gilliam	AL	2012	Over the top	Unacceptable injury (chlorosis, burnt leaf margins) with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31888	Sweet Alyssum (Lobularia maritima)	Field Container	Lieth	CA	2012	Over the top	No significant injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
27681	Magnolia (Magnolia sp.) M. grandiflora	Field Container	Uber	CA	2011	Over the top	Defoliation of younger leaves lead to unacceptable injury rating from two sequential applications at 0.375, 0.75 and 1.5 lb ai per acre
27681	Magnolia (Magnolia sp.) M. grandiflora 'Alta'	Field Container	Wade	SC	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
27681	Magnolia (Magnolia sp.) M. virginiana	Field Container	Mathers (OSU)	OH	2009	Over the top	No injury or growth reduction at 0.375, 0.75, and 1.5 lb ai per acre.
31618	Apple & Crabapple (Non-Bearing) (Malus sp.) 'Ginger Gold'	Field In-Ground	Cochran	IA	2014	Over the top	Moderate injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice; no significant growth reduction.
31618	Apple & Crabapple (Non-Bearing) (Malus sp.) M. baccata	Field In-Ground	Beste/Frank (NER)	MD	2013	Over the top	Moderate injury with quick and complete recovery at 0.375, 0.75 and 1.5 lb ai per acre applied twice; no reduction in growth or marketability.
31618	Apple & Crabapple (Non-Bearing) (Malus sp.) 'Spartan'	Field In-Ground	Cochran	IA	2015	Over the top	Minor injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice; no significant growth reduction.
31405	Bayberry (Myrica pensylvanica)	Field Container	Senesac	NY	2016	Over the top	Minor injury with 0.375, moderate injury with some recovery with 0.75 and 1.5 lb ai per acre applied twice.
30928	Mondo Grass, Lilyturf, Ker-Gawl (Ophiopogon sp.) O. japonica	Field Container	Uber	CA	2012	Over the top	No injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.

PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
30928	Mondo Grass, Lilyturf, Ker-Gawl (Ophiopogon sp.) O. japonicas	Field Container	Czarnota	GA	2012	Over the top	No injury with 0.375, slight with complete recovery with 0.75 and 1.5 lb ai per acre applied twice; no height reduction.
30928	Mondo Grass, Lilyturf, Ker-Gawl (Ophiopogon sp.) O. japonicus	Field Container	Gilliam	AL	2012	Over the top	No injury with 0.375, 0.75 and 1.5 lb ai per acre after 1st applic., unacceptable injury (chlorosis, burnt leaf margins) after 2nd applic.
31932	Peony (Paeonia sp.) 'President Roosevelt'	Field In-Ground	Miller	WA	2015	Over the top	High initial injury with complete recovery within a month at 12, 24 and 48 fl oz per acre applied twice.
30929	Feathergrass (Pennisetum sp.) P. alopecuroides 'Cassian'	Field Container	Neal	NC	2013	Over the top	Mild injury (foliar necrosis, stunting) with complete recovery at 0.375, 0.75 or 1.5 lb ai per acre; delayed flowering at 4X.
30929	Feathergrass (Pennisetum sp.) P. setaceum rubrum	Field Container	Klett	CO	2014	Over the top	No injury with 0.38, 0.75 and 1.5 lb ai per acre after 1st, moderate to severe after 2nd applic.; severe growth reduction with 4X.
30929	Feathergrass (Pennisetum sp.) P. villosum	Field Container	Senesac	NY	2012	Over the top	Low injury with 0.375 and 0.75, moderate (lack of vigor) with 1.5 lb ai per acre applied twice.
31082	Beard-Tongue (Penstemon sp.) P. digitalis 'Huskers Red'	Field Container	DeFrancesco	OR	2014	Over the top	Slight to moderate injury after 1st applic. with 12, 24 and 48 fl oz per acre, with complete recovery by the 2nd applic.; no growth reduction.
31082	Beard-Tongue (Penstemon sp.) Penstemon digitalis	Field Container	Klett	CO	2013	Over the top	Slight to moderate injury increasing with rates (0.375, 0.75 and 1.5 lb ai per acre) with complete recovery applied twice; slight growth reduction at 4X.
31082	Beard-Tongue (Penstemon sp.) 'Prairie Dusk'	Field Container	Beste/Frank (ARS)	MD	2012	Over the top	Significant injury with good recovery, but 50% growth reduction, with 0.375, 0.75 and 1.5 lb ai per acre applied twice; reduction in marketability.
27682	Petunia (Petunia sp.) 'Cascadias Blue Dream'	Field Container	Klett	CO	2012	Over the top	No injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice; slight growth reduction at 2X and 4X.
27682	Petunia (Petunia sp.) 'Double Cascade Blue'	Field Container	Wade	SC	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
27682	Petunia (Petunia sp.) P. x hybrida 'Easy Wave White'	Field Container	Beste/Frank (ARS)	MD	2011	Over the top	Plants appeared to tolerate 2 applications with 0.375, 0.75 and 1.5 lb ai per acre but recovery from spray injury may take up to 8 weeks.
31406	Mock Orange (Philadelphus sp.) P. hybridus 'Polar Star'	Field Container	Czarnota	GA	2013	Over the top	Inconclusive results due to high injury from treatments, including untreated check.
31406	Mock Orange (Philadelphus sp.) P. lewisii	Field Container	Jones	OH	2013	Over the top	Slight injury but no significant growth reduction with 0.375 lb ai per acre applied twice; severe injury with 0.75 and 1.5 lb ai per acre.
27683	Phlox, Perennial (Phlox paniculata) 'David'	Field Container	Beste/Frank (ARS)	MD	2011	Over the top	Significant injury with 0.375, 0.75 and 1.5 lb ai per acre after 1st application, some recovery after 2nd application; reduced growth and flower number at 2X and 4X; greatly reduced marketability at all rates.
27683	Phlox, Perennial (Phlox paniculata) 'Flame Purple'	Field Container	Boydston	WA	2012	Over the top	Moderate injury but no growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; some treated plants saleable.
27683	Phlox, Perennial (Phlox paniculata) 'Flame Series Purple'	Field Container	Boydston	WA	2010	Over the top	Significant crop injury with 2 applications of F6875 4SC at 0.375, 0.75 and 1.5 lb ai per acre.

PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
27683	Phlox, Perennial (Phlox paniculata) 'Sub Snowflake'	Field Container	Wade	SC	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
31408	Spruce (Picea sp.)	Field Container	Freiberger	NJ	2012		No sufficient data could be collected due to plant death or lack of thriving across all treatments including untreated controls.
31408	Spruce (Picea sp.) P. sitchensis	Field Container	DeFrancesco	OR	2015	Over the top	No injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31407	Pine (Pinus sp.) P. nigra	Field Container	DeFrancesco	OR	2015	Over the top	No injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31407	Pine (Pinus sp.) P. teada	Field Container	Fraelich	GA	2013	Over the top	No injury or growth reduction with 0.375, and 0.75, slight injury with complete recovery at 1.5 lb ai per acre, applied twice; slight stunting at 4X; all plants marketable.
31407	Pine (Pinus sp.) Pinus elliotti var. densa	Field Container	Marble	FL	2015	Over the top	No significant injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
31615	Cherry, Black (Non-Bearing) (Prunus serotina)	Field In-Ground	Beste/Frank (NER)	MD	2013	Over the top	Severe injury with 0.375, 0.75 and 1.5 lb ai per acre.
30933	Oak (Quercus sp.) Pin Oak	Field Container	Freiberger	NJ	2012	Over the top	No sufficient data collected because plants never broke dormancy and died, or died before trial conclusion.
30933	Oak (Quercus sp.) Q. alba	Field Container	Aulakh	CT	2016	Over the top	Slight to moderate injury (leaf curling, tattering, necrosis) increasing with rates (12, 24 and 48 fl oz per acre) applied twice; no growth reduction.
30933	Oak (Quercus sp.) Q. virginiana	Field Container	Marble	FL	2016	Over the top	No injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; all plants marketable.
26552	Azalea (Rhododendron sp.) 'Girard Crimson'	Field Container	Beste/Frank (ARS)	MD	2011	Over the top	No significant injury at 0.375 and 0.75, moderate injury with some recovery at 1.5 lb ai per acre; no growth reduction. No reduction in marketability.
26552	Azalea (Rhododendron sp.) 'Gwenda'	Field Container	Wade	SC	2007	Over the top	No injury at 0.375, 0.75 and 1.5 lb ai per acre
26552	Azalea (Rhododendron sp.) R. 'Farrow'	Field Container	Mathers (OSU)	OH	2010	Over the top	Crop injury difficult to assess. Many untreated azaleas died while treated plants had far fewer casualties.
26552	Azalea (Rhododendron sp.) R. 'Fashion'	Field Container	Gilliam	AL	2010	Broadcast	No injury or differences in growth with one or two applications at 0.375, 0.750, 1.5 lb ai per acre.
30934	Rose (Rosa sp.) 'KnockOut'	Field Container	Mathers (OSU)	OH	2013	Over the top	Moderate injury with complete recovery at 100, 200 and 400 lb per acre.
30934	Rose (Rosa sp.) 'Knockout Rose'	Field Container	Jones	OH	2012	Over the top	No injury with 0.375 and 0.75, slight injury with quick recovery with 1.5 lb ai per acre applied twice; no growth reduction.
30934	Rose (Rosa sp.) 'Mini Rainbow'	Field Container	Mathers (OSU)	OH	2012	Over the top	Severe injury with 0.375, 0.75 and 1.5 lb ai per acre after 1st application.
30934	Rose (Rosa sp.) 'Radrazz'	Field Container	Freiberger	NJ	2012	Over the top	Slight to moderate injury with 0.375, 0.75 and 1.5 lb ai per acre after 1st application; plants outgrew injury after 2nd application.
30934	Rose (Rosa sp.) 'Radtko'	Field Container	Beste/Frank (ARS)	MD	2012	Over the top	No injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; no reduction in marketability.

PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
30717	Coneflower (Rudbeckia sp.)	Field Container	Reding	OH	2012	Over the top	Severe injury and growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; treated plants not marketable.
30717	Coneflower (Rudbeckia sp.) 'Goldstrum'	Field Container	Boydston	WA	2013	Over the top	Slight to moderate injury with complete recovery, no growth reduction with 0.375 and 0.75 lb ai per acre applied twice; severe at 1.5 lb; 4X plants not saleable.
30717	Coneflower (Rudbeckia sp.) R. fulgida 'Goldstrum'	Field Container	Beste/Frank (ARS)	MD	2012	Over the top	Unacceptable injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
30717	Coneflower (Rudbeckia sp.) R. fulgida 'Goldstrum'	Field Container	Neal	NC	2012	Over the top	Moderate injury (leaf necrosis, reduced growth) with some recovery at 0.375, 0.75 and 1.5 lb ai per acre with 2 applic.
30718	Pasture Sage (Salvia nemorosa) 'May Night'	Field Container	Beste/Frank (ARS)	MD	2012	Over the top	Moderate injury with good recovery and no growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; reduction in marketability at 4X due to reduced flowering.
30718	Pasture Sage (Salvia nemorosa) 'May Night'	Field Container	Boydston	WA	2012	Over the top	No injury with 0.375 and 0.75, slight with 1.5 lb ai per acre applied twice; no growth reduction; all plants saleable.
30718	Pasture Sage (Salvia nemorosa) 'May Night'	Field Container	Derr	VA	2012	Over the top	No injury with 0.375 and 0.75 and 1.5 lb ai per acre applied twice.
30718	Pasture Sage (Salvia nemorosa) S. sylvestris 'Blue Hill'	Field Container	Senesac	NY	2013	Over the top	Minor injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
30690	Stonecrop (Sedum sp.)	Field Container	Reding	OH	2012	Over the top	Moderate to severe injury and growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice; treated plants not marketable.
30690	Stonecrop (Sedum sp.) S. hylotelephium 'Neon'	Field Container	Boydston	WA	2012	Over the top	No injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre after 1st application, moderate injury and some growth reduction after 2nd applic; almost all treated plants saleable.
30690	Stonecrop (Sedum sp.) S. rupestre 'Angelina'	Field Container	Boydston	WA	2012	Over the top	No injury or significant growth reduction with 0.375 and 0.75 lb ai per acre applied twice; all plants saleable.
30690	Stonecrop (Sedum sp.) S. Spurium 'Red Carpet'	Field Container	Klett	CO	2012	Over the top	No injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice; slight growth reduction at 4X.
30690	Stonecrop (Sedum sp.) S. ternatum 'Larinem Park'	Field Container	Senesac	NY	2012	Over the top	Low injury with 0.375, 0.75 and 1.5 lb ai per acre after 1st application; moderate to severe injury (lack of vigor and necrosis) after 2nd application.
30935	Lilac (Syringa sp.)	Field Container	Freiberger	NJ	2012	Over the top	Slight to moderate injury (leaf burn) at 0.375, moderate to significant with 0.75 and 1.5 lb ai per acre.
30935	Lilac (Syringa sp.) 'Old Fashioned'	Field Container	Jones	OH	2012	Over the top	Slight to moderate injury increasing with rates (0.375, 0.75 and 1.5 lb ai per acre) applied twice; no growth reduction.
26556	Bald Cypress (Taxodium distichum)	Field In-Ground	Beste/Frank (ARS)	MD	2011	Over the top	Phyto ratings with 0.375, 0.75 and 1.5 lb ai per acre unreliable due to environmental stress; only the 4X rate reduced plant height; additional studies needed.
26556	Bald Cypress (Taxodium distichum)	Field In-Ground	Beste/Frank (NER)	MD	2013	Over the top	Slight to moderate injury with quick and complete recovery at 0.375, 0.75 and 1.5 lb ai per acre applied twice; slight height reduction; no reduction in marketability.
26556	Bald Cypress (Taxodium distichum)	Field In-Ground	Czarnota	GA	2006	Over the top	No injury at 0.75 and 1.13 lb ai per acre

PR#	Crop	Production Site	Researcher	State	Year	Application Type	Results
26556	Bald Cypress ( <i>Taxodium distichum</i> )	Field In-Ground	Jones	OH	2013	Over the top	No injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre after 1st applic., slight injury with the 2 higher rates after second applic.; no significant growth reduction.
26687	Arborvitae ( <i>Thuja</i> sp.)	Field Container	Freiberger	NJ	2012	Over the top	No injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre.
26568	Arborvitae ( <i>Thuja</i> sp.) <i>Buddleia davidii</i>	Field In-Ground	Harvey	WA	2015	Over the top	Test on <i>Buddleia davidii</i> . No injury or growth reduction with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
26687	Arborvitae ( <i>Thuja</i> sp.) <i>T. occidentalis</i>	Field Container	Uber	CA	2011	Over the top	Two sequential applications at 0.375, 0.75 and 1.5 lb ai per acre were not injurious throughout the evaluation period.
26687	Arborvitae ( <i>Thuja</i> sp.) <i>T. occidentalis</i> 'Emerald Green'	Field Container	Mathers (OSU)	OH	2009	Over the top	No significant or acceptable injury or growth reduction at 0.375, 0.75, and 1.5 lb ai per acre.
30691	Arrowwood ( <i>Viburnum</i> sp.)	Field Container	Freiberger	NJ	2012	Over the top	Slight injury (leaf burn) with 0.375, moderate with 0.75 and 1.5 lb ai per acre.
30691	Arrowwood ( <i>Viburnum</i> sp.) <i>V. rhytidophyllum</i> 'Alleghany'	Field Container	Beste/Frank (ARS)	MD	2012	Over the top	Slight to moderate injury with quick recovery at 0.374, 0.75 and 1.5 lb ai per acre applied twice; significant growth reduction at 4X; no reduction in marketability at 1X and 2X.
30691	Arrowwood ( <i>Viburnum</i> sp.) <i>V. suspensum</i>	Field Container	Uber	CA	2014	Over the top	No injury at 12, 24, and 48 fl oz per acre.
27684	Periwinkle ( <i>Vinca</i> sp.)	Field Container	Koivunen	CA	2015	Over the top	No injury or growth reduction with 12, slight with 24 and 48 fl oz per acre, applied twice.
27684	Periwinkle ( <i>Vinca</i> sp.)	Field Container	Mansue	NJ	2013	Over the top	Moderate to severe injury with 0.375, 0.75 and 1.5 lb ai per acre applied twice.
32955	Palm, Mexican Fan ( <i>Washingtonia robusta</i> )	Field Container	Rivera	PR	2014	Over the top	No significant injury with 0.375, 0.75 and 1.5 lb ai per acre after 1st applic, minor and moderate with 2X and 4X after 2nd applic; no growth reduction.

## Label Suggestions

For F6875 0.3G, it is suggested that the 22 crop species exhibiting no injury in testing be placed on the label with over-the-top applications.

<i>Abies fraseri</i>	<i>Magnolia</i> sp.
<i>Calamagrostis acutiflora</i>	<i>Miscanthus sinensis</i> (See Regan)
<i>Canna</i> sp.	<i>Picea glauca</i>
<i>Coreopsis</i> sp.	<i>Pseudotsuga menziesii</i>
<i>Cotoneaster</i> sp.	<i>Rhododendron</i> sp.
<i>Dendranthema x morifolium</i>	<i>Rosa</i> sp.
<i>Dianthus gratianopolitanus</i>	<i>Salvia</i> sp.
<i>Festuca ovina glauca</i>	<i>Scabiosa</i> sp.
<i>Gardenia augusta</i>	<i>Thuja occidentalis</i>
<i>Lagerstroemia indica</i>	<i>Thuja orientalis</i>
<i>Loropetalum chinensis</i>	<i>Thuja plicata</i>

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*.

For F6875 4SC, it is suggested that the 13 crop species exhibiting no injury during testing be placed on the label with over-the-top applications.

<i>Aloe</i> sp. (see Villavicencio)	<i>Magnolia</i> sp. (See Uber)
<i>Buxus</i> sp.	<i>Ophiopogon</i> sp. (see Gilliam)
<i>Calamagrostis acutiflora</i>	<i>Petunia</i> sp.
<i>Delosperma</i> sp. (see Klett)	<i>Salvia nemorosa</i>
<i>Echinocactus grusonii</i>	<i>Taxodium distichum</i>
<i>Euonymus</i> sp.	<i>Thuja occidentalis</i>
<i>Lagerstroemia indica</i>	

It is also suggested that growers be cautioned not to use F6875 4SC over the top on the following thirteen crops:

<i>Buddleia davidii</i>	<i>Heuchera sanguinea</i>
<i>Chasmanthium latifolium</i>	<i>Hibiscus</i> sp.
<i>Dryopteris</i> sp.	<i>Hosta</i> sp.
<i>Echinacea purpurea</i>	<i>Hydrangea macrophylla</i>
<i>Forsythia</i> sp.	<i>Phlox paniculata</i>
<i>Helianthus</i> sp.	<i>Rudbeckia</i> sp.
<i>Hemerocallis</i> sp.	

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