

THE PURDUE LANDSCAPE REPORT

Killing Grasses in 'Grasses'? How to control grasses in non-grassy ornamental plants

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A question that I often receive goes something like.... 'How do I control grassy weeds in lirioppe and iris?' At first glance, it would appear that those ornamental plants are very similar to grasses, but looks may be deceiving as they are actually not grasses. We know that broadleaf weeds can be controlled in grasses via broadleaf specific herbicides (Fig. 1), as well as grassy weeds can be controlled in broadleaf plants fairly easy with grass specific herbicides (Fig. 1 and Fig. 2). What is often misunderstood is the control of grassy weeds in *grass-like* ornamental plants.

Broadleaf and grass weeds metabolize some herbicides differently. These differences allow herbicides to be selective in nature. True grasses are in the *Poaceae* family. Grass-like ornamental plants, such as lirioppe and iris are not in the *Poaceae* family, so the selectivity of grass-specific herbicides will not damage these plants.



Figure 1. Grassy weeds in lirioppe can be controlled with grass-specific herbicides because lirioppe is not a true grass.



Figure 2. Grassy weeds in iris can be controlled with grass-specific herbicides because iris is not a true grass.

Grass-specific herbicides (called graminicides) can usually be used safely over the top of many ornamental plantings. The four labelled postemergence grass-specific herbicides in ornamental plantings (nurseries and landscapes) include fluazifop, fenoxaprop, sethoxidim, and clethodim. These herbicides fall into the ACCase Inhibitor category, which includes many agronomic herbicides that aren't labelled in ornamentals. These four products will control the majority of grassy weeds that are most prevalent in nurseries and landscapes.

Research data have suggested that some of the common ornamental grasses are somewhat tolerant to grass-specific herbicides. For example, removing foxtail from feather reed grass will result in very little injury to the feather reed grass while effectively controlling foxtail (Fig. 3). Some ornamental grasses are more tolerant, in general, than others, such as ravenna grass, switchgrass, and fountain grass being susceptible to injury at two rates of multiple herbicides, while others are more tolerant to low rates of several herbicide chemistries (Fig. 4). Though these two studies demonstrate the potential of developing safer rates of

grass-specific herbicides, be very cautious and follow label directions, to prevent damage (phytotoxicity) to the ornamental grasses on your properties.

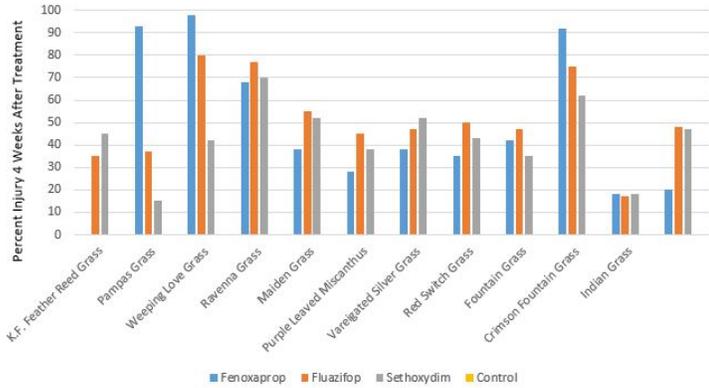


Figure 3. Injury to 11 ornamental grasses to three grass specific herbicide four weeks after treatment. Injury is rated 0-100% with 100% equivelanet to death. Modified from Hubbard and Whitwell, 1991.

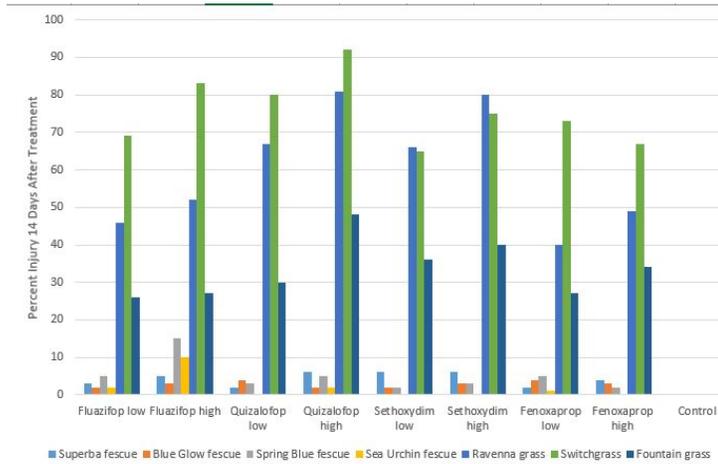


Figure 4. Injury to seven ornamental grasses after applying low and high rates of four herbicides at 14 days after treatment. Modified from Catanzaro et.al., 1993.

If you would like to discuss your herbicide management plan for your nursery or landscape, contact Kyle at daniel38@purdue.edu. Always follow the pesticide label of the products you are using. Reference in this publication to any specific commercial product, process, or service, or the use of any trade, firm, or corporation name is for general informational purposes only and does not constitute an endorsement, recommendation, or certification of any kind by Purdue University. Individuals using such products assume responsibility for their use in accordance with current directions of the manufacturer.

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