



## Postemergence Herbicide Options for Controlling Weeds in Naturalized Areas

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Naturalized grass stands, sometimes referred to as native areas or infrequently mowed fine fescues, can enhance the aesthetics of golf courses and reduce costs associated with water, fertilizer, fungicides, and mowing. However, naturalized grass stands can be a maintenance headache, often becoming infested with weeds, insects, and burrowing animals. Weed control is especially challenging for highly invasive plants such as quackgrass, Japanese stiltgrass, nutsedge, and Canada thistle, often requiring multiple applications of specialized herbicide products

Whereas annual grass weeds such as foxtail and crabgrass can be controlled or suppressed with preemergence herbicides, postemergence control of perennial grasses, sedges, and broadleaf weeds is more challenging. Some postemergence herbicides will injure fine fescues, whereas others are relatively safe, so be sure to read product labels carefully for tolerant grass species before using in naturalized grass areas.

Two postemergence grass herbicides that are effective in controlling perennial and annual grass weeds in naturalized fine fescue stands are fluazifop-P-butyl (Fusilade II Turf & Ornamental Herbicide and Ornamec 170) and sethoxydim (Segment II and Sethoxydim SPC). Both herbicides are safe to use on fine fescues at label-specified rates but differ somewhat in the species of weed grasses controlled. In trials conducted at Penn State, Fusilade II performed better than other herbicides with respect to suppression of quackgrass when applied at 16 fl oz/acre and mixed with a nonionic surfactant in June and again in early September. Fusilade II also provided good control of escaped creeping bentgrass in fine fescue stands at 16 fl oz/acre in late summer, although creeping bentgrass is not listed as a weed species on the product label. For optimum herbicide efficacy, a nonionic surfactant should be mixed with Fusilade II. Caution should be used when applying fluazifop-P-butyl herbicides near native grasses, such as little bluestem and switchgrass.

Segment II and Sethoxydim SPC provide postemergence suppression or control of numerous annual and perennial grass weeds, including Japanese stiltgrass, bermudagrass, quackgrass, wirestem muhly, perennial ryegrass, and seedling tall fescue. Trials at Penn State have demonstrated excellent safety on fine fescue species with Segment II at the highest label rate when combined with 1.5 pt/acre methylated seed oil. However, Segment II and other sethoxydim herbicides can injure most other cool season turfgrasses, as well as little bluestem, when subjected to a direct spray application at highest label rates with methylated seed oil added to the spray mixture.



**Figure 1:** Quackgrass infestation in naturalized turf area.

Trails at Penn State have shown good efficacy on wirestem muhly and suppression of quackgrass when Segment II is applied twice at the maximum label rate for fine fescues in early July and early August. Good suppression of 1-year-old tall fescue has been observed in fine fescue stands when Segment II was applied once in early September. Methylated seed oil and crop oil concentrate products are recommended as additives for sethoxydim products for enhanced weed control.

Yellow nutsedge can be controlled in fine fescue naturalized grass stands with one of several different postemergence herbicides that contain sulfentrazone (Dismiss, Dismiss NXT, Solitare, or Echelon 4SC), halosulfuron (Sedgehammer or Prosege), or Imazosulfuron (Celero). Nutsedge herbicides are best applied in mid-June before tubers (nutlets) mature.



**Figure 2:** Yellow nutsedge infestation in fine fescue roughs.

Highly invasive broadleaf weeds can be controlled by one or more combinations broadleaf herbicide active ingredients. One of the most tenacious and common broadleaf weeds, Canada thistle, can be controlled with postemergence applications of clopyralid-containing products such as Confront or Lontrel. Trials at Penn State in 2021 demonstrated that NativeKlean, a herbicide containing 2,4-D and aminopyralid, performed as well as Confront in controlling Canada thistle. Canada thistle has extensive rhizomes and is a prolific seed producer; thus, it has potential to produce new plants throughout the growing season. Follow-up herbicide applications are usually needed for acceptable control of this weed species.

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#### **About Pete Landschoot**

*Dr. Landschoot's primary responsibility is to serve as the resident extension turfgrass management specialist in Pennsylvania. This assignment involves organizing and implementing extension education programs and is accomplished through organizing large regional conferences; development of extension publications, slide sets, videos, and computer programs; contribution to newsletters and trade magazines; and participation in media events. Dr. Landschoot provides current management information to clientele through presentations at meetings, seminars, workshops, and field demonstrations. His research program focuses on integrated pest management with emphasis in disease management, use of composts as soil amendments in turf, turfgrass variety evaluation, and soil fertility.*



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