

Managing Midwestern Naturalized Areas

Planning, Weed Control and Occasional Mowing Can Create Wild-Looking Spaces on the Course

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Many superintendents see benefits in mowing selected areas just once or twice a year to create “naturalized” areas of tall grass. Budgetary savings, for both labor and equipment, often result. Moreover, fertilizer, insecticides and fungicides are rarely, if ever, applied to these areas.

There can also be environmental benefits. Taller plants provide food, shelter and protection for birds, mammals and assorted insects, amphibians and reptiles

Perhaps most important, unmowed areas can enhance the golfing experience as they separate fairways or present shot-making challenges. The attractiveness of the unmowed area may be improved by planting flowering forbs and grasses.

On the downside, unmanaged naturalized areas can become unattractive, weedy messes, and some golfers may find even well-managed naturalized areas unappealing. Unmowed areas too close to fairways can slow play when golfers search for errant shots. Weed control may require labor and chemicals.

Increased wildlife can also be a negative. Deer and rabbits may damage plants, both on the course and on neighbors’ grounds. Nuisance insects such as mosquitos or yellow jackets may also proliferate in naturalized areas. Finally, including natural areas where they don’t belong may compromise the original design of some courses.

But under the right circumstances, naturalizing makes sense for many golf courses.

Observations

At many upper-Midwest golf courses, superintendents simply stop mowing out-of-play areas and allow existing vegetation to grow. Often, certain varieties of cool-season grasses are present. Orchardgrass (*Dactylis glomerata*), smooth brome (*Bromus inermis*), creeping bentgrass (*Agrostis palustris*) and fine fescues (*Festuca species*) may dominate in lightly shaded areas. Creeping bentgrass, Kentucky bluegrass (*Poa pratensis*), tall fescue (*Festuca arundinacea*) and timothy (*Phleum pratense*) are often found in sunny areas.

Foxtails (*Setaria species*) and other grassy weeds are often present. Dandelions (*Taraxacum officinale*), buckhorn plantain (*Plantago lanceolaria*), Canada thistle (*Cirsium ar-*

vense), chicory (*Chicorium intybus*) and wild carrot (*Daucus carota*) may also emerge, along with white and yellow sweet clovers. Woody plants such as cottonwood and willows can be troublesome.


Mowing naturalized areas once or twice a year cleans up debris, reduces weed and woody plant invasion and stimulates grass growth. Mowing in mid-to-late spring can remove cool-season grass seedheads, and late-summer or early-autumn mowing will clean up naturalized plantings and encourage regrowth of cool-season grasses.

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Naturalized Areas—

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Be aware that mowing on an annual or semi-annual basis can produce large amounts of clippings. Rotary mowers chop up clippings somewhat, but sickle-bar mowers leave long clippings that must be removed if it appears grasses will be unable to grow through them.

Periodic burning is useful in natural areas or prairies dominated by warm-season grasses and forbs, but fires may damage or kill shallow-rooted, cool-season grasses, and such grasses may not dry out enough to burn readily.

Hand pulling, cutting or burning can be effective against some weeds. For woody plants, it is often necessary to combine mechanical methods with herbicides. timing may be critical. Yellow and white sweet clover are controlled best if cut to the ground just before flowering. Others, such as Canada thistle, should be cut during flowering.

Herbicides are also used in naturalized areas. Specific formulations of 2, 4-D, dicamba and triclopyr are labeled for broadleaf control in naturalized settings. When dealing with any pesticides, be sure to read, understand and follow all label instructions for the safest and most effective control.

Plan The Attack

Before you decide whether to naturalize an area, answer the following questions:

- Are naturalized areas appropriate for your course? Will your course layout be negatively affected by naturalizing?
- What are your objectives? Are you just trying to reduce maintenance or do you want to enhance the appearance of an area? Are you trying to separate fairways? Think about the “look” that you want to achieve.
- Will naturalized areas slow play? Uncut areas can slow play significantly if too many errant shots end up there.
- How much plant diversity do you want in these areas? Are you recreating a meadow or prairie, or are you willing to live with only cool-season grasses in these areas? Do you want to bring in flowering plants and warm-season prairie grasses? What time of year do you want the area to be most attractive?
- How will the area be managed? How often will you mow? Can you tolerate weeds? How will you treat them? What is your overall management plan? Is burning an option, practically and legally?

Least-Management Option

If you opt for the least-management alternative, naturalization of cool-season grasses can begin as soon as normal management activities cease. Future management will include mowing in spring before plants go to seed — or in autumn before resumption of active growth — and collection of clippings. The major benefit to this naturalizing option is the overall labor and chemical savings.

This least-management option can, over time, result in serious weed invasion, particularly in summer, when cool-season grasses may be dormant. Aesthetically, this option lacks attractive plants, such as wildflowers or unique grasses, and may become more unattractive because of weeds.

Modest-Management Option

If you add selective pre- and post-emergence herbicides for controlling weeds to the least-management option, you can obtain more control over naturalization. For example, should chicory invade the area, a post-emergence broadleaf herbicide can be applied. Similarly, if green foxtail (*Setaria viridis*) becomes a problem, several selective pre-emergence herbicides are available for control. In cool-season grasses, either broadcast applications or post-emergence spot treatments can be made.

The modest-management option combines the savings resulting from infrequent mowing with improved appearance; offending weeds are reduced or eliminated. Still, this option suffers from a lack of colorful, attractive broadleaf plants.

Enhanced-Management Option

The goal of the enhanced-management option is to create a naturalized area in which attractive grasses and flowering plants are incorporated and weeds are controlled.

Mowing once or twice per year and collecting the clippings is again part of this management scheme. Attractive grasses and flowering plants can be incorporated, using

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seeds or plants, into island beds rather than planting into the grass stand itself.

Concentrating mixed planting into island beds allows weeds to be easily and selectively controlled in the cool-season grass portions of the planting without damaging the plants in the island, and it lets the new plants establish with less competition.

To create island beds, identify spots where increased color and plant diversity may enhance the appearance of the hole. Outline beds using turf paint. Apply glyphosate (Roundup) to the outlined areas when the cool-season grasses are actively growing (usually spring or early summer), then mow after the grass dies. Some grasses may require a second application of glyphosate for complete kill. Scratch the surface lightly with a vertical mower or similar equipment so seed can make contact with the soil. Rotary tilling is not advised because it can turn up weed seeds.

Select plants adapted to your site and region that, together, provide season-long color. Select plants of similar height to avoid a rough, unkept appearance. Use grasses sparingly, if at all. Be aware that seeds of attractive perennial grasses or flowering broadleaf plants can take two or more years before they flower and become showy.

Many greenhouses sell perennials as "plugs." These are

small, relatively inexpensive established plants and are cheaper than large, potted plants. Most plugged plants will flower during the planting year or during the first year following planting.

Plugs need to be watered repeatedly to ensure establishment. A 2-inch layer of a fine-textured organic mulch can hold soil moisture, guard against soil temperature extremes and restrict weed seed germination and establishment. A pre-emergence herbicide such as Preen (trifluralin) should reduce weed invasion.

Conclusion

Not every course is suited to naturalizing. Before starting, be sure to think through the entire process and the likely results.

The results will probably be both interesting and surprising. Wildlife may increase. Some golfers will be excited by the "new" look, but others will mourn the loss of the manicured past. You may even stretch your budget further than anticipated.

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(Editor's Note: Tom Voigt, Ph.D., is an Extension turfgrass specialist at the University of Illinois. This article was reprinted with the permission of Golf Course Management magazine.)

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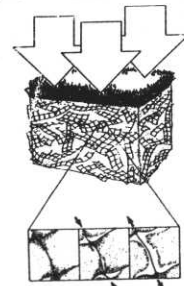
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