Chris Blake –N–

Chris, girlfriend Gina and goose chaser Sampson.

Question: What do you get when you combine a new, relatively unknown golf course off Northwest Highway (Rt.14) in Barrington and another great superintendent who is a student of the legendary Oscar Miles?

Answer: A fantastic Chicagoland golf course called Makray Memorial.

Golf Course Superintendent, Chris Blake, has led the golf maintenance operations at Makray Memorial Golf Club since it's new beginning. By "new beginning," I mean that Makray Memorial, before its grand reopening in 2004, used to be called Thunderbird Country Club. Paul Makray purchased Thunderbird in 1962 and improved it each year, providing a sporty course at a very reasonable rate. When he passed away in 1999, his family made the decision to completely redesign and rebuild the course and facilities. They changed the name to Makray Memorial Golf Club in Paul's honor. What a fitting way to honor a loved one!

The 18th 555 yard par 5 finishing hole at Makray Memorial.

Having grown up in the industry since the age of eight, Chris Blake has participated in basically all aspects of golf course operation. This Tucson, Arizona, native started by washing balls in the bag room and running around as the "range rat" at Raven Golf Club. Once he turned 16, Chris started on the crew at Raven, working and learning what would turn into his career. Having a love of the game of golf and working outdoors, Chris knew that this was his calling.

From 1996 through 1999, he remained employed by the Raven Golf Company, but his new position was assistant superintendent. After 3 years with Raven, Chris's career goal remained the same. To achieve it, he knew that some background and philosophy would benefit him in his chosen field. He chose to attend Penn State. While in Happy Valley, he learned of a gentleman who loved to teach and mold his assistants and interns into golf course superintendents. With Oscar Miles as his mentor, Chris spent 2 seasons (1999-2000) as an intern/second assistant for the Merit Club. He wanted to work for a great

(continued on page 12)

 (continued from page 11)

person he could learn from and to have the opportunity to host a major tournament. This all fell into place for Chris as the Merit Club hosted the 2000 Women's U.S. Open.

Upon graduating from Penn State in 2000, he contacted Sig Kalano at Bull Valley Golf Club in Woodstock. Chris spent 2001 as assistant at Bull Valley. At that time, one of the owners of Bull Valley was redesigning a golf course in Barrington. In 2002, Harry Vignocchi asked Chris to move to Makray Memorial as head superintendent.

Since that time, Chris has totally reshaped this golf course. The once flat Thunderbird is now a hilly, undulating track. All of the greens were changed to USGA specs and seeded Penn G-2. A great coincidence during the reconstruction of Makray was that Northwest Hwy. (Rt. 14) was being expanded at the same time. So, in collaboration with the State of Illinois, the 55,000 semi loads of fill used in Makray's renovation came primarily from the expansion of Rt. 14. Another project that Chris and his staff are tackling is continued attention to their native areas. There are 30 acres of native areas over the whole property. "We are still trying to get that one dialed in," Chris says.

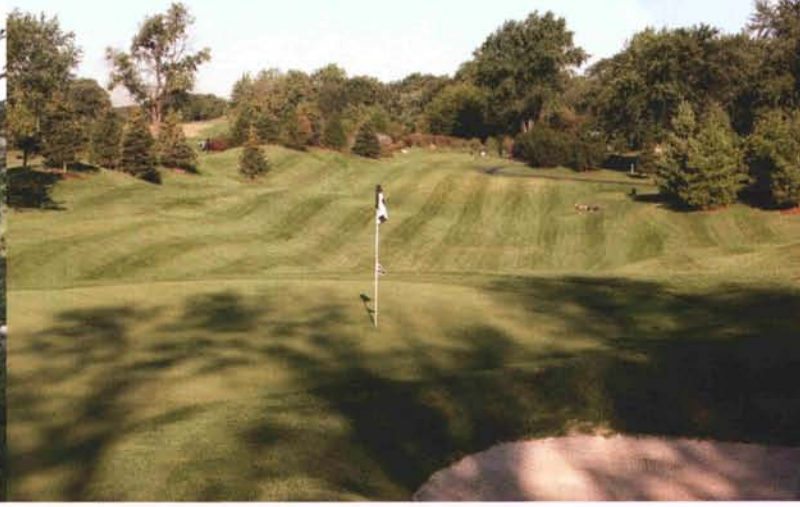
Being true to his roots and ideals, Chris brings on two interns every year. His intern/assistantship with Mr. Miles made a huge mark. Chris feels strongly about helping educate the future superintendents of our industry.

The members of the MAGCS are in for a real treat come September for our monthly meeting. Besides outstanding conditions on the golf course, the clubhouse at Makray is beautifully decorated. This two-story, stone building provides a relaxing atmosphere. The first level has a restaurant/grille along with the Pro Shop. The top floor, where our meeting will be held, boasts a room that holds up to 300 people. Everyone should put September 25th on their calendars and make sure to attend our monthly meeting at Makray Memorial Golf Club.

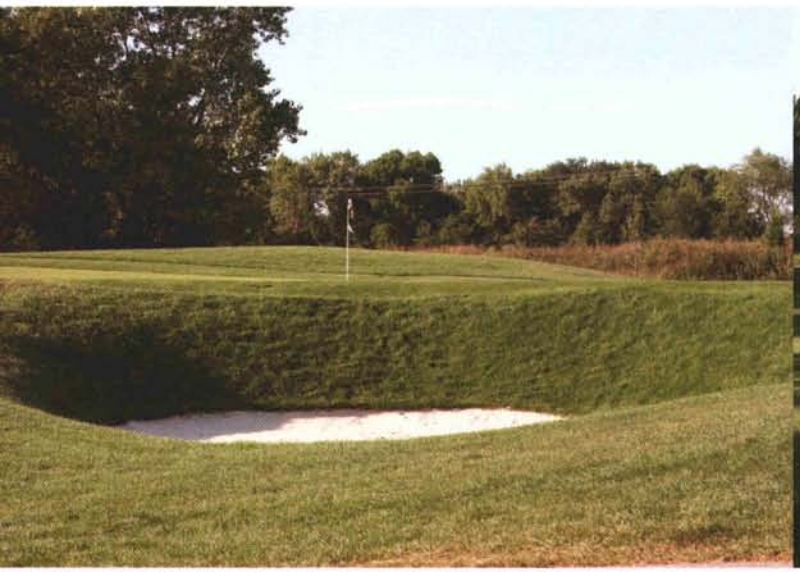
Chris has totally reshaped this golf course.

Many ornamental plantings adorn Makray Memorial as pictured around the 13th tee complex.

One of the most aesthetically pleasing pump houses in the Chicagoland area.

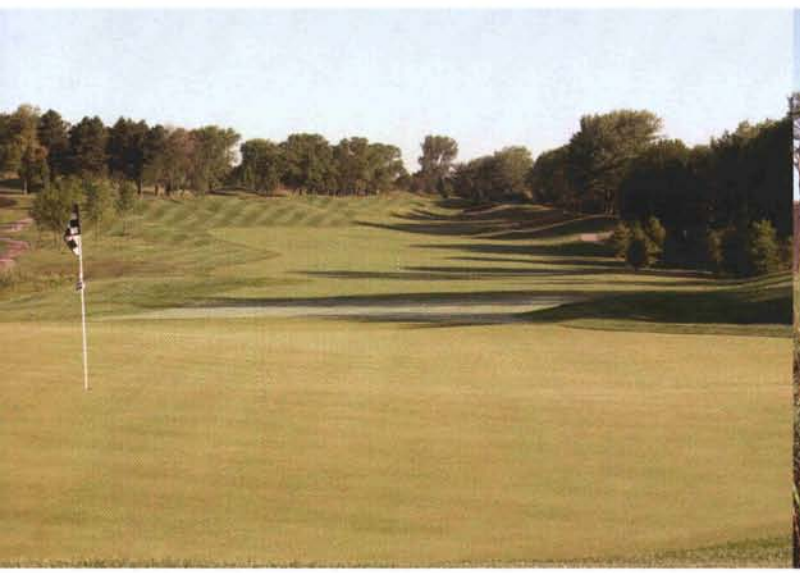


The 189 yard par 3 13th from behind the green. The bluegrass surrounds make the tee shot all carry.

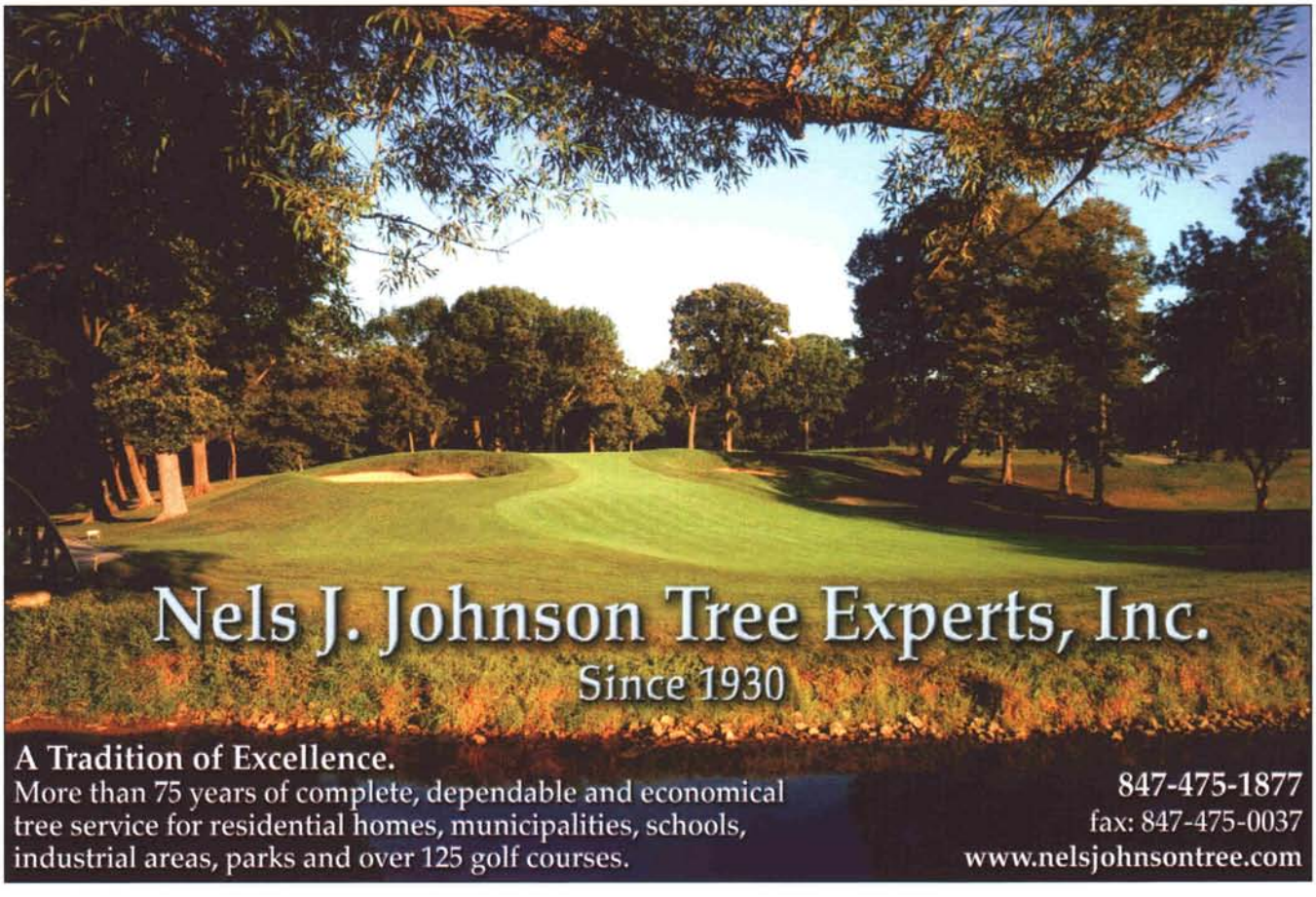


Don't get caught in the sand on the 244 yard par 3 17th.

One really gets a sense of the mounding when playing the 7th par 3 at Makray.



The 562 yard par 5 15th from the back of the green.

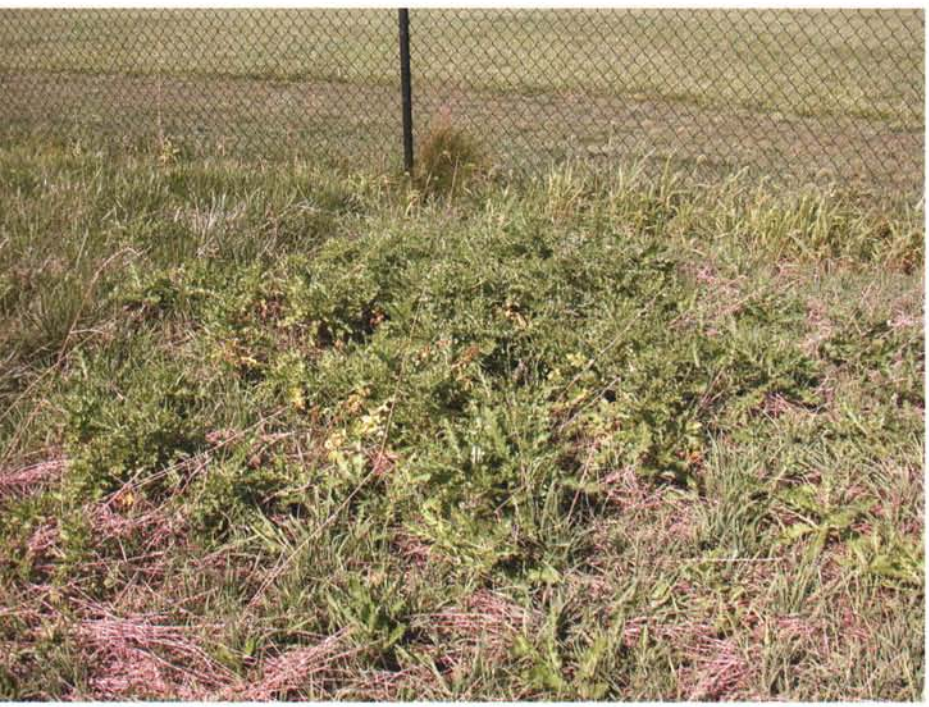


Tom Voigt *University of Illinois*

Results of the 2005 MAGCS-GCSAA Un-mowed Rough Survey

In 2003, Randy Kane, Jon Jennings, and I were awarded a matching grant from the Midwest Association of Golf Course Superintendents and the Golf Course Superintendents Association of America to study turf and native grasses in naturalized and un-mowed roughs. As one objective of this research, we established and studied un–mowed exotic and native grass plots at the Midwest Golf House in Lemont, IL. (Look for results of that work in the GCSAA's September, 2006 Golf Course Management.) Another objective was to obtain input from superintendents to guide our future research on un-mowed rough.

In January 2005, we sent surveys to 90 randomly selected Class A and SM MAGCS Superintendents to find out about their un-mowed rough areas –we were particularly interested in establishment and management activities and the problems encountered in these areas. Of the 90 sent out, 53 completed surveys were returned by April 2005. This article shares some of the responses.



Canada thistle is one of the main weed problems in un-mowed roughs.

General Information and Respondent Demographics

Of the respondents, 87% indicated that some part of their facility is currently covered with un-mowed grassy areas, wildflower plantings, meadows, or prairies. Of those, 44% intended to expand these areas at their facility. Un-mowed areas were part of the original design of 33% of the facilities represented and/or were incorporated during a course remodel on 20%. An average of 22.8 acres at each facility was covered (or planned to be covered) by un-mowed grasslands, wildflower plantings, meadows, or prairies. There was a range in the size of un-mowed grassy areas at these courses; at one extreme, 8 courses had no un-mowed acreage, while, from the other extreme, 9 courses reported 50 or more un-mowed grassy acres. The oldest course represented opened in 1896, while the newest course opened in 2003. Eighteen of the courses have undergone a major remodel since opening.

The survey responses represented a good cross section of MAGCS members; 17 were from municipal courses, 13 from daily fee courses, 22 from private courses, and 1 from a semi-private course. Moreover, 5 respondents managed 9-hole facilities, 37 managed 18-hole facilities, 4 managed 27-hole facilities, 6 managed 36-hole facilities, and 1 managed a facility having more than 36

(continued on page 16)

holes. Additional respondent demographics appear in Table 1.

Establishing Un-Mowed Grassy Areas

On courses where the un-mowed grassy areas were NOT part of the facility's original design, 39% allowed the existing vegetation to establish the new area, 28% planted native grasses and flowering plants, 15% planted only native grasses, Of the remainder, 6% planted exotic grassy species such as fine fescue, 6% planted exotic grassy species and flowering plants, and 6% planted other types of plants. Respondents reported that challenges faced when converting to or installing un-mowed grassy areas were weeds (36%), unkempt appearance (26%), golfer resistance (18%), slow establishment (13%), lack of plant or establishment knowledge (5%), and unspecified other (1%).

Many plant species have been tried in the un-mowed grassy areas. Exotic grasses included fescue species, ryegrasses, bentgrass species, Timothy, and bluegrass species. Native grasses included buffalograss, big bluestem, little bluestem, bottlebrush grass, bluejoint, cordgrass, Indian grass, prairie dropseed, switch grass, and side-oats grama. Many forbs (herbaceous flowering plants) were also listed as being grown by respondents. These included black-eyed Susan, golden rod, blue wild indigo, prairie coreopsis, shooting star, coneflowers, rattlesnake master, butterfly weed, prairie milkweed, lead plant, Joe pyeweed, boneset, prairie smoke, blueflag iris, blazing stars, and asters. Unfortunately, weeds were also listed by some respondents and included

Here, redtop serves as both an un-mowed rough and also a buffer strip.

Table 1.
Respondent per course demographics based on annual maintenance budget.

Annual Maintenance Budget	Type of Facility	Number of Golf Holes	Average Number of Rounds Per Year	Average Total Acres	Average Acres of Woodlands, Forests, or Savannas	Average Acres of Ponds or Lakes	Average Acres of Creeks, Streams, or Rivers
< $249,999.00	6 municipal	4 9-holes; 2 18-holes	36,667	57.5	7.7	1.4	0.5
$250,000.00 to $499,999.00	4 daily fee; 4 municipal; 2 private; 1 semi-private	1 9-holes; 9 18-holes; 1 27-holes	28,000	155.1	19.5	6.5	3.3
$500,000.00 to $749,999.00	4 daily fee; 4 municipal; 6 private	12 18-holes; 1 27-holes; 1 36-holes	29,214	185.8	30.8	12.8	1.9
$750,000.00 to $999,999.00	2 daily fee; 2 municipal; 10 private	12 18-holes; 1 27-holes; 1 36-holes	27,423	210.3	24.6	22.0	1.7
> $1,000,000.00	3 daily fee; 1 municipal; 4 private	2 18-holes; 1 27-holes; 4 36-holes; 1 > 36-holes	42,125	300.0	20.1	26.8	3.7

wild carrot, chicory, foxtail, yellow nut-sedge, white and yellow sweet clovers, and lots of tree saplings.

Respondents reported they had the best success establishing the exotic and native grasses including the fescues, switchgrass, big and little bluestems, Indian grass, and side-oats grama. Several had success growing purple coneflower, black-eyed Susan, boneset, rattlesnake master, golden rod, asters, blazing star, pennstemon, coreopsis, butterfly weed, sedge, dotted mint, and spiderwort. Oddly, several respondents reported having the least success in establishing wild flowers (or native forbs). Black-eyed Susan, blazing star, shooting star, and coreopsis were listed specifically. One survey indicated the mix of wildflowers and grasses planted "looked good for 2-3 years, then faded out and were overtaken by prairie grasses." Another stated, "It has been mixed results. More often these areas just take "forever" to look good."

Managing Un-Mowed Ares

Of the respondents 13% fertilize the un-mowed grassy areas at their courses, and 67% mow these areas. When fertilized, one superintendent reported using 200 pounds K_2O per acre, another applied 0.75 pounds N once in the spring, a third applied Milorganite once (rate not specified), a fourth applied "21-3-10 once every 3 or 4 years" (again, the rate was not specified), and a fifth fertilized 3 times per year with 1 pound N per application. Mowing heights and frequencies varied, but the majority indicated that they mowed these areas once per year in early-to-mid autumn at 3 to 6 inches. Several reported removing the clippings. Some alternated mowing and burning the un-mowed areas every other year. Of the respondents 57% burn their un-mowed grassy areas. Of the respondents who burn, 80% of them conduct in-house burns in the spring, 17% conduct in-house burns in the autumn, and 3% contract burns in the autumn.

Weeds (41%) and an unkempt appearance (26%) were the two biggest challenges associated with the superintendents' un-mowed grassy areas (Table 2). One indicated that their biggest challenge was "weeds -

(continued on page 18)

Blue grama and buffalo grass plots at the Midwest Golf House.

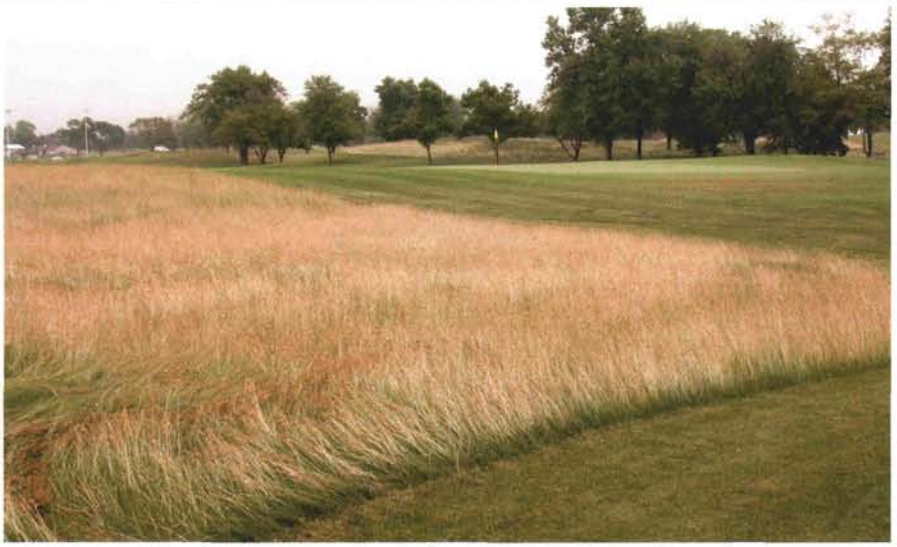
mainly thistle - golfers don't play out of [these] areas wisely - homeowners don't appreciate the prairie look – [they] like a manicured look." Another superintendent wrote of the unkempt appearance, "Carts are driven through these areas. The areas (fescue mounds) get that matted look. [There is] continuous foot traffic (looking for golf balls)." Other challenges associated with un-mowed grassy areas included golfer resistance, slow play, and nuisance insects/wildlife.

Superintendents control weeds using herbicides and/or mechanical removal. Forty-six percent of respondents spot apply herbicides, 41% hand pull or mechanically remove the weeds, and/or 13% broadcast herbicides. Herbicides used for broadleaf weed control included Speedzone, Lontrel, Confront, Gallery, Millenium, 2-4-D, Triplet, Trimec, dicamba, and MCPP. Several respondents also used the non-selective herbicide, RoundUp. Only one survey reported using the herbicide, Dimension, for grass control.

Summary

There are several findings from this survey that agree with previous writings or observations.

- Grasses, either exotic or native, are often easier to establish than forbs.
- After flowering in late spring, fine fescues (creeping red, Chewings, hard, and sheep) frequently mat down.
- Weeds are the main problem in these areas, particularly in mixed stands where broadcasting herbicides will damage either grasses or the forbs in the stand.
- Be patient when planting native grass and forb mixes, expect high-quality results (e.g., flowering, reduced weed invasions, etc.) to take at least two, and more likely three, years.
- Be wary of "wildflower" mixes that contain mostly exotic annuals and biennials. Areas planted to these mixes usually look great the first year, less good the second season, and pretty bad thereafter. Select mixes that contain true natives and mow to control weeds during the first few seasons to give the natives a chance to mature with as little weed competition as possible.
- Mow cool-season grasses (fescues, bentgrasses, ryegrasses, bluegrasses, Timothy, and orchardgrass) at 3″ to 6″ in autumn and remove the clippings. Warm season native areas can be burned in spring or autumn.



Fine fescues are commonly used as un-mowed roughs.

Where Are We Going?

Because un-mowed roughs can reduce monetary and chemical inputs and enhance wildlife biodiversity and the golfing experience, these areas are a part of many Midwestern golf courses. In this survey, half of the respondents were interested in creating playable un-mowed roughs in which golfers can find and hit errant shots. A new project will continue these studies of playable un-mowed roughs and will be conducted at the Midwest Golf House and at the University of Illinois Landscape Horticulture Research Center. This recently funded work will evaluate the survival, aesthetics (flowering, height, and color), weed invasion, and playability of five cultivars of blue grama alone or mixed with buffalograss, will evaluate chemical weed controls in these plantings, and will evaluate burning and mowing practices in order to identify the best method of removing dead, aboveground plant material. We envision the outcome of this research assisting Midwestern golf course superintendents, designers, and architects in creating playable, un-mowed, naturalized roughs that are better than the fine fescue roughs that are often planted at present.

Table 2.
Weeds most commonly occurring in respondent un-mowed grassy areas.

Weed	Percent Respondent Occurrence
Canada thistle	41
white or yellow sweet clovers	19
quackgrass	8
reed canary grass	6
tall fescue	6
unsure	6
other (examples include wild carrot, milkweeds, foxtails, other thistles, giant ragweed, burdock, crabgrass, barnyard grass, and woody plants such as willow, poison ivy, and mulberry)	6
chicory	5
giant reed	4

In this survey, half of the respondents were interested in creating playable un-mowed roughs in which golfers can find and hit errant shots.

Acknowledgements

The author thanks Dr. Randall T. Kane, formerly Director of Turfgrass Programs, Chicago District Golf Association and Mr. Jonathan S. Jennings, Golf Course Superintendent, Chicago Golf Club for their assistance with this project. Also, the GCSAA, the MAGCS, and the Illinois Turfgrass Foundation are acknowledged for supporting this research.

For out-of-play roughs, a combination of tall fescue, orchard grass, and Timothy creates an easy-to-maintain area that tolerates light shade.