"BRING US YOUR VISION, AND WE'LL BUILD THE GOLF."



Are you planning to remodel or renovate several holes on your golf course? Will you be constructing new tees, greens, bunkers or other features in the not-so-distant future? If so, talk to GolfVisions.

GolfVisions and its principals have a proven track record of providing exceptional construction and remodeling services to the golf industry. With a team of experienced personnel, financial resources and premier equipment, GolfVisions stands ready to meet your project's needs today. We will give your project the attention, service and expertise you require to translate your "golf vision" into reality.

OUR MIDWEST EXPERIENCE

Current/upcoming projects include:

- Hodge Park G.C., Kansas City, MO
- Jackpot Junction, Morton, MN
- Broken Arrow G.C., Lockport, IL
- The Glenview Club, Glenview, IL Our principals have guided these local construction efforts,
- and many more:
- · Worth Municipal G.C., Worth, IL, opened spring 1999
- · Settler's Hill G.C., Batavia, IL
- Maple Meadows G.C., Wood Dale, IL
- · Highland Park C.C., Highland Park, IL
- The Sanctuary, New Lenox, IL
- Iron Horse G.C., Tuscola, IL
- · Sportsman C.C., Northbrook, IL
- Emerald Hills G.C., Sterling, IL
- Sand Creek C.C., Chesterton, IN
- Des Moines G.C., Des Moines, IA, site of 1999 Senior U.S. Open
- Royal Fox G.C., St. Charles, IL
- Broken Arrow G.C., Lockport, IL
- White Mountain G.C., Orland Park, IL
- Delbrook G.C., Delavan, WI
- Thornberry Creek G.C., Green Bay, WI
- Sunset Valley C.C., Highland Park, IL
- Eagle Brook C.C., Geneva, IL
- Brown Deer Park G.C., Milwaukee, WI, site of 1998 Greater Milwaukee Open

OUR PHILOSOPHY

At GolfVisions, our priorities are:

 Realizing the architect's vision through exceptional shaping and finish grading

 Employing talented and experienced personnel to construct the best golf course infrastructure with attention to:

- Drainage
- Irrigation
- Grassing methodology
- Quality materials
- · Preserving golf course design integrity
- · Providing long-term value to the client
- Striving to exceed client expectations
- Working with clients in an atmosphere of mutual respect and achieving our clients' goals

GolfVisions' mindset is compatible with that of golf course superintendents. In fact, three of our principals, president Tim Miles, Sr., and vice-presidents Tom Jauch and Doug Long, started out in the golf industry as superintendents. While our experience and reputation are national--our team has done work nationwide and we have an office in Show Low, AZ--we are dedicated to bringing the best of golf to the Midwest.

GolfVisions Corporate 3000 Dundee Road, Suite 302 Northbrook, IL 60062 Phone: 847-412-9990 Fax: 847-412-9996

GolfVisions is a member of the Golf Course Builders Association of America and the GCSAA.

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A Different Approach . . . (continued from page 10)

nating in an area, the likelihood exists that more will germinate throughout the season each time the surface becomes moist.

With this strategy, to maximize the persistence of the preemergence herbicide, it would be helpful to delay the initial application as long as possible to reduce the period of time remaining in the season during which the preemergence herbicide needs provide effective control. to Generally, a postemergence grass herbicide should be applied before any crabgrass plants began to tiller. Even at the four- to six-leaf stage of growth, control of crabgrass is only partially effective.

Drive—a new postemergence herbicide

The EPA has registered a new herbicide for use as a postemergence annual grass control in turf. Drive 75 DF provides the turfgrass manager with a new option for managing both annual grass and broadleaf weeds after they appear. Since most cool-season turfgrass species have good-to-excellent tolerance of this herbicide, it can be used later in the season than many other existing herbicides. Drive 75 DF is now available from the BASF Corporation and its common name is quinclorac. Since 1988, quinclorac has been evaluated as a turf herbicide at many university research centers. My initial experience with the compound was an evaluation of its preemergence capabilities in a field trial conducted in 1989. BASF quickly realized its greatest potential was as a postemergence herbicide.

Quinclorac has been evaluated under several experimental names and can be found in the results of many universities' annual research summaries as BAS 514, BAS 090, Impact or Drive. The results of the studies can be found in two distinct time periods. Much of the initial work was done between 1989 and 1993 and might be referred to as the early work. BASF discovered some limitations with the surfactant that was used in the initial formulation. *(continued on page 14)*

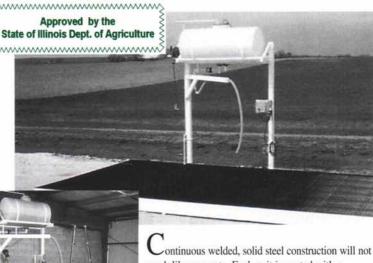
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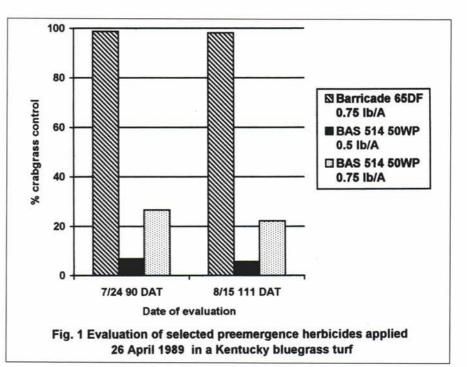
A Different Approach . . .

(continued from page 12)

These limitations prevented quinclorac from receiving EPA registration. Through additional internal field trials, BASF discovered that the substituted surfactants decreased the effectiveness of quinclorac; a brief period ensued when university researchers did not evaluate the compound. In 1997, a new formulation of Drive was made available to university researchers and trials have been conducted over the past two years. I'll refer to this as the current evaluations.

Early evaluations

From 1989 to 1992, quinclorac was evaluated at many university research sites. Annual research summaries from each of the institutions contain the results of the studies. I will present only the results of studies conducted at the University of Illinois field research facility in Urbana to



illustrate the general performance of quinclorac on common turfgrass weeds.

In 1989, we evaluated quinclorac (BAS 514) as a preemergence herbicide for crabgrass control. The results of this study, shown in figure 1, indicate that this formulation of quinclorac was not an effective preemergence herbicide. Our (continued on page 16)



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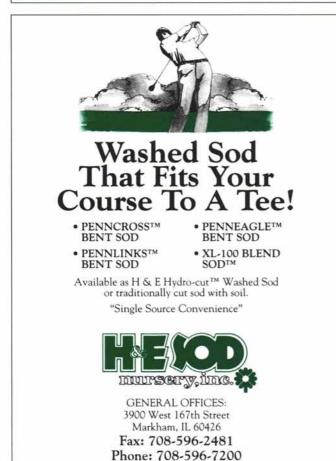
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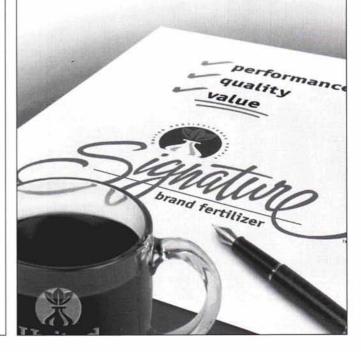
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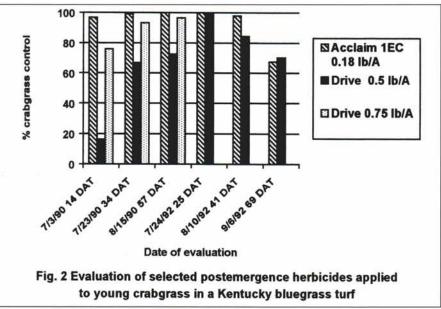


A Different Approach . . .

(continued from page 14)

evaluations of quinclorac continued in 1990 and 1992, however, now we studied it as a postemergence crabgrass herbicide. Applications were made in separate experiments to either young (1-3 leaves) crabgrass plants (figure 2) or mature (1-2 tillers) crabgrass plants (figure 3). This postemergence control strategy was relatively effective in comparison to a standard material such as Acclaim 1 EC, but crabgrass control with quinclorac was somewhat slower for young crabgrass seedlings (figure 2).

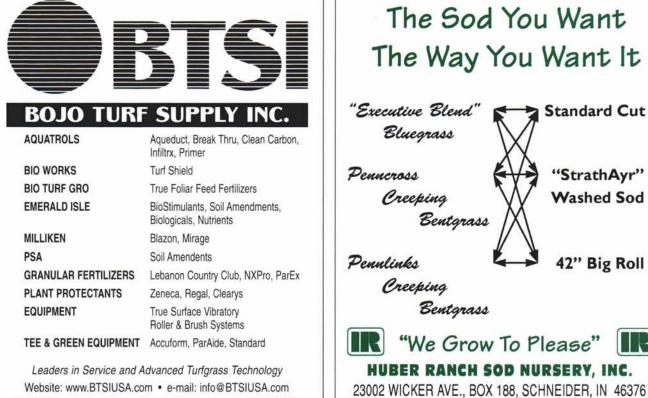
When applied to more mature plants (figure 3), quinclorac showed crabgrass control capability somewhat comparable to Acclaim 1 EC. What is not shown by the two figures is the tolerance that a Kentucky bluegrass turf has to an application of quinclorac. While a slight discoloration was observed for



Acclaim treatments in both experiments, no difference in quality appeared between the Drive-treated turf and untreated areas. This margin of safety appears to be one of the best attributes of this herbicide. **Current evaluations**

In 1998, we evaluated a new formulation of Drive 75DF for both preemergence and postemergence activity on several selected turfgrass weeds. Unlike the 1989 experiment, Drive 75DF at 0.5 lb./A was quite successful as a *(continued on page 24)*





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The Birth of a Golf Course

Tony Kalina Prairie Landing G.C.

our newborn baby: 10 fingers, 10 toes, everything is in the proper place, all is well, mom is fine. As a parent, those are the words you trust you will spread to family and friends. In bringing forth a baby, how well you prepare and provide for that child while it is in the womb can make the difference. The birth of a golf course, like the prenatal care and delivery of an infant, is an undertaking involving arduous and challenging actions.

Golf course construction challenges both the body and the spirit, just like parenthood. For those of you who have encountered this feat, I am sure you understand. The days (and nights) are long and the hours are even longer. It is a vigorous feat that requires the utmost in your time and talents. Despite all that, a successful golf course construction project can be a personally and professionally rewarding experience.

Golf course construction has three phases. They are planning, construction and grow-in. Each is essential to the success of the others.

The planning phase

The success of most golf course construction projects is often determined during the planning phase. Communication is the backbone of planning phase success. Building an atmosphere of teamwork and common objectivity amongst owner, designer, contractors and staff is fundamental. Each has a role, a professional skill and vision that is anchored on unique strengths. The designer designs, the construction contractor builds that design and the superintendent Golf course construction challenges both the body and the spirit, just like parenthood . . . It is a vigorous feat that requires the utmost in your time and talents. contributes to and administers the design and construction. Developing an open and professional work relationship between team members is important. Understanding the responsibilities, contributions and goals of each team member can eliminate "stepping on toes," promote cooperation and accomplish the owner's objectives, on budget and on time.

Another key ingredient to ensure success during planning is obtaining a thorough evaluation of the site. The "lay of the land" renders the design limitations and characteristics. The topography and soil textural classes are the most influential constituents of the design, grassing, drainage and routing of the golf course. Cost (continued on page 20)

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The Birth of a Golf Course

(continued from page 18)

estimations of construction materials and techniques are based and developed primarily on the attributes of the site. Grounded (forgive the pun) on these site factors, preliminary construction budgets are established.

Once the owner's goals, budgets and schedules are clear, and the site analysis is complete, a routing plan is chosen. There are numerous factors to consider before choosing a routing plan. These considerations include: major drainage, irrigation, water, grassing schemes, landscaping, car paths, greens construction, design features, regulatory permitting, pump stations, clubhouse and utilities locations, maintenance facility requirements, parking, traffic flow, safety, environmental issues and on, and on.

The single greatest advice I would give someone starting a golf course construction project is hire a highly experienced, competent and qualified superintendent early. The technical expertise a qualified superintendent will bring to a construction project is invaluable. His technical expertise and subject knowledge can ensure the highest quality construction and premium playing conditions, and reduce construction costs. The return on every dollar for compensating the early hiring of a superintendent is perhaps ten-fold the expense. Hire early, hire early and hire early!

After a designer has been selected, a superintendent hired and a golf course routing plan chosen, it is time to write detailed and comprehensive construction specifications and bid documents. Detailed construction specifications, when properly supervised, will prevent inept construction methods and materials from being utilized. The specs will become holy writ by which all construction is bid and performed.

The single greatest advice I would give someone starting a golf course construction project is hire a highly experienced, competent and qualified superintendent early.

The construction phase

The heart of any golf course construction project is the construction phase. Normally a golf course contractor is selected through a competitive bid process. However, a course can be built by an owner, acting as a general contractor with subcontractors, or even in-house.

During the construction phase, the role of the superintendent changes. Administering the construction contract, being the owner's "eyes" and assuring quality control of construction materials and techniques, add to the growing list of construction phase responsibilities.

When selecting a contractor, consider low "qualified" bid as your best guarantee of construction quality. Low "unqualified" bids often result in poor or faulty construction, substandard playing conditions and greater future repair expense.

Similar to the technical qualifications of the superintendent, a (continued on page 30)

