THE BULL SHEET, official publication of the MIDWEST ASSOCIATION OF GOLF COURSE SUPERINTENDENTS.

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## President's Message by Dave Meyer

I hope this summer has been as busy for most of you as it has been for me, then maybe you did not notice that my monthly article was missing from last months **Bull Sheet**. Unfortunately the Editor did notice, and reminded everyone, I apologize.

This has been a good summer for growing grass until the last few weeks when it has been a little too wet in some areas. Rainfall has been heavy in some areas and sparse in others. At times it seems that highways can be the line, with rain on one side and none on the other. September has already provided us with 7 plus inches of rain, which makes it very hard to accomplish fall projects.

We did have one dry spell of 23 days this summer, but most lakes and reservoirs held levels adequate for irrigation. It was just looking like a repeat of last year, when the rains came. I was worried enough, that I started looking for alternative sources of water supply. Our course is close to the Village sewerage plant. We were able to obtain an EPA permit with the help of the village. We now have 350,000 gallons of water available daily if so needed.

I received notice that Tom Fermanian will not be an advisor to ITF any longer. He will be missed.

Packets arrived for the GCSAA Convention in Orlando. If you plan to attend the Golf Tournament and/or attend the Conference with your spouse and maybe your children, I was given the impression that all events seem to have escalated in dollars from previous years.

I had the pleasure of attending and speaking at Albie Staudt's retirement dinner. It was a task I truly enjoyed. I found it easy to comment about someone who always is willing to give a hand when asked and always participates in the activities of our association. Albie served Geneva Golf Club for 30 years, and has been a member of the MAGCS since 1946. He served on the Board of Directors from 1968 to 1974 at which time he became President. I wish Albie and Bertha much happiness and health in his retirement.

As President of the M.A.G.C.S. I was asked to serve on the selection committee for the Illinois Section PGA Hall of Fame. This was their first of what will be an annual affair. The recipients are all people who have contributed to the game of golf. They are C.B. Macdonald, the first golf course architect in the United States as well as Illinois; Chick Evans; undoubtedly the greatest amateur golfer of all times and also founder of the Evans( Scholar program; Herb Graffis, a long time honorary member of the M.A.G.C.S. and an editor and writer of many magazines and articles; Jonny Ravolta, a local golf professional and tour player; Charles Bartlett, sports editor for the Chicago Tribune (cont'd. next page) for over 30 years and always promoted golf through his Locker Room column. M.A.G.C.S. presents a Charles Bartlett award to members of our Association for their editorials or articles promoting our Association and the game of golf. Carol McCue, who we all know as Miss Chicago District Golf Association. Carol was the designer of the CDGA computerized handicap system. Hubby Habjan, golf professional at Onwentsia Club, teacher of many assistant professionals and also known around the world for promoting the golf club professional. Joe Jensek, familiar to all of us for his many golf operations in the Chicagoland area.

The Illinois Section of the PGA, I am sure, with the input of our Association, will in the near future induct past or present Greenkeepers into their Hall of Fame for their contributions to the game of golf.

Albie Staudt Retirement Party



Albie Staudt with his family at the retirement party the Geneva G.C. held in his honor on August 14, 1989



Ed Braunsky, Albie and Mrs. Staudt



Left to right: Bill Kraft, Des Miller, President of Geneva G.C.; Albie Staudt, and Robert Middleton, Chairman of the Grounds and Green Committee.

## What Has Happened to Our Courses

by Dave Esler

(Dave Esler is a golf course architect and professional golfer). As most of us are well aware, the Chicagoland area is blessed with an abundance of extraordinary golf courses. Within a 40 mile radius of the Loop lies at least one course by virtually every acknowledged master of golf course architecture. Local designs by Donald Ross, Charles Blair MacDonald, A. W. Tillinghast, and Alister MacKenzie have played host to our nation's most important championships including USGA Opens and Amateurs, most of the Western Opens and Amateurs, as well as several PGA Championships. A great deal of golf history and perhaps even folklore lies under our very spikes at the many old clubs here in Chicago. The members of these clubs should be proud of their courses. They should also be ashamed, very ashamed of what they are doing to them.

In the last fifteen years, I have had the good fortune to play nearly every first-rate golf course in the Chicago area and many more out of town and country. Almost without exception I have been astonished at the insensitivity, and often absurdity with which the redesign of great old courses has been handled. The disruption and often destruction of the character of so many historic courses is irresponsible, if not reprehensible.

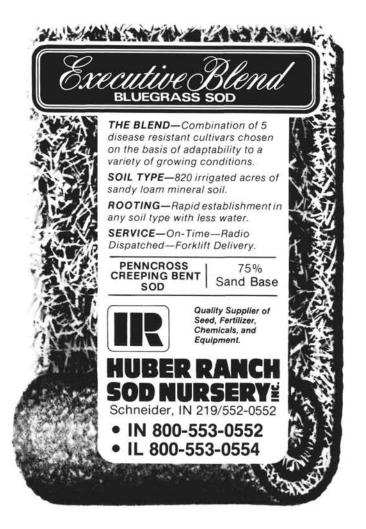
No one in their right mind would place Sears furniture in a building by Frank Lloyd Wright or Le Corbusier, nor would anyone have commissioned Andy Warhol to rework Leonardo da Vinci (when he did the result was a neon/dayglow Mona Lisa). However, this type of golf course architectural turkeyshoot redesign is far too common today. While golf course design is certainly not art in the high form of painting, nor arguably architecture, it is in fact a little of both, at least when performed well. I have no intention to blame any one association, institution, or group of individuals for such reckless redesign, because blame in itself is clearly useless. However, responsibility and solutions are useful.

The most responsible solution to redesign includes a master plan that identifies long term goals, and objectives of the membership, superintendent, and golf professional. It will also address solutions to immediate problems that can include, but are rarely limited to drainage, traffic flow, turf loss, and playability.

A master plan should also address restoring original playing strategy to a course within the context of improved equipment and turf conditions. It is of paramount importance that these new features be designed to fit the original aesthetic character of the course; unless the design intent is to create a whole new "look" for **all 18** holes. However, this is not often the case.

As a golf course architect, I assure you, nothing frustrates me more than seeing a seventy year old golf course that has on it one or two redesigned holes that look as if they belong on a municipal course circa 1974. That is tantamount to placing a Volkswagon Beetle front end on a Rolls Royce and expecting the value and aesthetic continuity to be maintained! That is simply not the net result.

The recent past has not been at all kind to many of our finest courses, both locally and nationally. While some of the unique, historical, and/or championship courses have remained unscathed by careless redesign, many have not been so fortunate. Even fewer have been redesigned or restored tastefully and effectively. I sincerely hope that the future is "kinder and gentler" to the remaining historic courses throughout Chicago and across the country.



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## A Thumbnail Sketch of the Bentgrasses by John H. Dunn

UMC Dept. of Horticulture

The bentgrasses are what we call "specialty grasses." You will not often find them on a home lawn by choice of the owner. These grasses are susceptible to a large number of diseases and other stresses that require an adept manager, usually, a golf course superintendent and they need constant manicuring for best quality.

Colonial bentgrass (*Agrostic tenius* Sibth.), a species probably introduced from Europe, was once a recommended component of lawn seed mixtures. But the tendency of older colonial bentgrass varieties to segregate into patches soon discouraged their use in this role. If colonial bentgrass is found in the home lawn today it is usually as a plant out of place. Best use of colonial bentgrasses is on golf course fairways, although competing Poa annua is often a problem. But current breeding of more aggressive, rhizomatous colonial bentgrasses at Penn State and other universities may someday renew interest in the species for golf course fairways.

The finest turfgrass surfaces are reserved for creeping bentgrasses (Agrostis palustris Huds). It's the most important of several bentgrass species and was brought to America from central Europe including Austria some time during the 1800's. They were initially referred to as German bents. Early attempts by the United States Golf Assn. at improving bentgrass for putting greens focused, beginning in 1917, on selection of promising, vegetatively spreading types from stands of the variable, seeded German bents. These selections would eventually replace the German bentgrass and mixtures of colonial bentgrass and chewings fescue on putting greens. A letter and number system was attached to these vegetative selections that preceded assignment of variety names. Some superintendents still refer to the varieties by the experimental numbers rather than names. Certain qualities of each variety led to their selection for use in different regions of the country. For example, C-7 ('Cohansey' - original selection in 1935 by Supt. Eb Steiniger, at Pine Valley C.C., N.J.), has good heat tolerance and was a logical choice for putting greens for tough midwest summers. Some older golf course putting greens are still mostly Cohansey which was a proven track record for long term persistence. Another variety, 'Toronto' (C-15) was grown successfully in the Great Lakes region of the Midwest until much of it was decimated by a bacterial disease. But it often fared poorly in the more intense heat and humidity of Missouri summers. These and other, similar bentgrass selections must be established vegetatively. by planting sod, plugs or sprigs, all slow and expensive procedures.

An early goal of plant breeders was to provide the golf course industry with seeded creeping bentgrass that would facilitate the establishment procedure. 'Seaside' creeping bentgrass that would facilitate the establishment procedure. 'Seaside' creeping bentgrass, a mixture of seed that originated from bentgrass types found near the Oregon coast, met this need. However, quality of the ensuing turf was not usually equal to that of the best vegetatively established bentgrasses. The goal of improving turfgrass quality of seeded creeping bentgrass was pursued

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#### (Bentgrasses cont'd.)

by Drs. Burton Musser and Joseph Duich (dew-itch) at Penn State University. Their efforts reached fruition in 1956, with the commercial availability of 'Penncross' creeping bentgrass (a special greenhouse problem - my introduction to research - assigned to me in 1957 as one of Dr. Duich's first undergraduate turf majors, was to test effects of 2,4-D on established Penncross growing in small pots; as we know today, the 2,4-D and Penncross were not always compatible). Penncross is a polycross of three parent types. Turf established from Penncross seed is of high quality, much more uniform compared with Seaside bentgrass turf. Its natural area of adaptation has been extended from the north to the southwest, with ample irrigation, and even to "deep" south states like Florida. Modern turf management tools, including more effective fungicides, have made its culture possible but difficult in these southern areas. Two seeded bentgrasses developed at Penn State, 'Penneagle' and 'Pennlinks', have joined Penncross in the bentgrass market since 1975. Successful use of these new varieties on golf course greens and/or fairways may gradually lead to broader acceptance by golf course superintendents. And breeding efforts continue to produce promising new bentgrass material. In the meantime, Penncross, at age 33, remains the dominant bentgrass turf.

#### Notes on some seeded bentgrass varieties:

Penncross — commercially released in 1956, is quick to establish and recuperates well following injury. Wear tolerance is considered very good to excellent. Vigorous growth is an advantage but also contributes to rapid thatch accumulation, especially, if Penncross is overfertilized with nitrogen.

Penneagle — was released in 1975; it's aggressive shoot growth and upright growth habit of shoots are characteristics desired in an improved putting green turf. We remember Penneagle as a very good experimental selection (PBCB) in our South Farm Turf plots about 1970. But vigor and recovery from wear may not be equal to that of Penncross, especially, at low to moderate levels of N. Penneagle may be a better choice for bentgrass fairways than putting greens.

Pennlinks — released in 1987; this upright growing, finer textured cultivar was tested on more than 100 golf courses under the code name PSU-126. Years of successful testing give it high marks but observations based upon use "in the field" are limited because of it's recent release.

Emerald — was developed from a single progeny of 'Congressional' (C-19) bentgrass. It is characterized by high shoot density and good low temperature tolerance. However, wear tolerance is poor and Emerald is prone to dollarspot.

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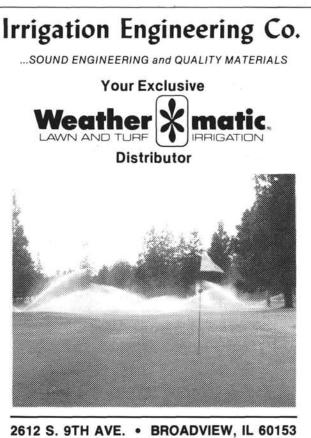
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## New Turfgrass Variety Cost

by Arden Jacklin Jacklin Seed Company

Most people, including myself at times, have no conception of what it costs to develop, test and introduce a new variety of turfgrass. My figures here are mostly based on Kentucky bluegrass, as this is the kind with which I am most familiar.

Let's start with a new selection or a new hybrid which has passed the first screening and is ready for more extensive testing. That first screening costs about \$500 for each entry. Of all entries, about 10% pass the first screening. So, we start with a \$5,000 cost on each entry which does not include the cost for getting it.

## **Two-Thirds Fail**

Preliminary testing for turf quality and seed producing ability in our plots run about \$4,000 per accession. A fair appraisal shows about two-thirds of the accessions fail in this test. So the investment in this test is \$12,000.

The next step is advanced turf and disease resistance in both western and eastern US. Eastern testing is necessary because in the West we don't have all the diseases that affect turf in the largest (easter) consumption area. These tests will cost about \$5,000 per entry. Assuming an average of two-thirds will fail to show promise, we come up with \$15,000 per successful accession.

### National Testing Important

So far, it's only our word that it's a good or superior variety. Therefore, it's necessary to give it wider and more open public testing in the National Variety Testing trials which involve some 30 testing sites. The charge is \$1,800 for a 3-year test. In our experience about one-third will fail, generating a cost of \$2,700 per accession. At this point, still an experimental number yet to be registered as a named variety, we have a total investment of \$34,700 in it.

It is now time to produce breeder seed from which foundation will be produced. Breeder seed fields or plots are small, requiring much work at high cost. An arbitrary cost well above what the seed can be resold for or charged out is about \$4,000.

### **Plant Variety Protection**

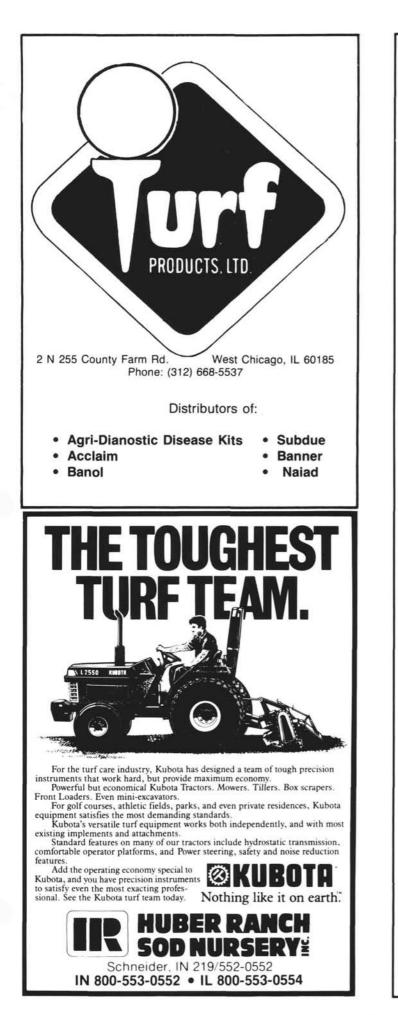
Next it is advisable, if not entirely necessary, to "insure" ownership by protecting rights to and registering of the variety. This is done through the PVP (Plant Variety Protection) process which for bluegrass costs \$2,000 per entry. Gathering information for submission on a PVP application costs an estimated \$3,000. The same data for PVP can be used to register the variety with the American Society of Agronomy and provide data to the various state certifying agencies for their certification standards.

The variety must be advertised and promoted to get potential customers and promote themselves in their markets. We have good cost figures here. We average \$30,000 per variety for first-year promotion, which includes magazines, in-house publications, convention displays, advertising brochures and favors.

### **A Whopping Total**

The grand total is \$73,700. That's a lot of money! To back up or justify that kind of investment requires an ongoing, aggressive marketing setup to reclaim it. Not too many companies will take the gamble, and it practically rules out public agency (cont'd. page 16)

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## Initial Lawn Mowing Practice Determines Seedling Development

Research at Pennsylvania State University by Agronomist J. M.Duich has determined how to best mix Kentucky bluegrass and perennial ryegrass seed so that they produce an uniform appearing lawn with favorable genetic diversity. Balanced mixtures of these different grasses are difficult to obtain because of the more vigorous seedling growth of the ryegrass compared with the bluegrass. Early mowing practices have been found to influence these competitive relationships.

The consumer wants quick turf cover, contributed ryegrasses, and high turf quality, from bluegrasses.

Mowing started two weeks after planting - about nine days after the emergency of the ryegrass - is favorable to bluegrass stand development. At this time, there is usually about a fifty percent turfgrass ground cover.

Mowing at a one and one half inch height, starting two weeks after planting, produced a fifty-fifty mixture of bluegrass and ryegrass at two months when the seed mixture consisted of ninety five percent bluegrass and five percent ryegrass. Mowing at a one half inch height, starting two weeks after planting, produced a fifty-fifty mixture at two months when fifty percent bluegrass and fifty percent ryegrass were used.

Early close mowing favors bluegrass at the expense of the ryegrass. This makes possible the development of high quality turf using less bluegrass and more ryegrass in the seed mixture. Increasing the ryegrass results in more rapid development of lawngrass cover and greater consumer satisfaction.

The Lawn Institute

### TURFGRASS AND ORNAMENTAL CHEMICAL SEMINAR

ADVANCED COURSE -- November 28 to 30, 1989 (This seminar is oriented to more in depth look at specialized problems for professional turf and ornamental applications. The course outline is given below.)

FUNDAMENTAL COURSE -- February 21 and 22, 1990 (This seminar is designed for entry level turf people. It will also serve as a refresher course for turf professionals. A thorough update on applied knowledge for the end-user will be the emphasis in this seminar. It will be limited to turf chemicals.)

#### Tuesday, November 28, 1989

10:00-10:45 a.m.	Turfgrass Insect Biology Jeff Lefton, Extension Turfgrass Specialist
10:45-12:00 noon	Turfgrass Insect Control Update Tim Gibb, Extension Entomologist
12:00 noon-1:00 p.m.	Lunch on your own
1:00-2:45 p.m.	Soil Chemistry and Pesticides Jim Ahlrich, Soil Chemist
2:45-3:00 p.m.	Break
3:00-4:00 p.m.	Pesticides and Organic Matter Ron Turco, Soil Microbiologist
4:10-5:30 p.m.	Application, Equipment Problems, and Calibration Problems Drew Martin, Pesticide Program Specialist
	Wednesday, November 29, 1989
S:00-9:00 a.m.	Broadleaf Weed Control Update Jeff Lefton, Turfgrass Extension Specialist
9:00-9:45 a.m.	Nutsedge and Post-emergent Crabgrass Control Jeff Lefton
9:45-10:00 a.m.	Break
10:00-12:00 noon	Steps in the Diagnosis of Pesticide Plant Damage Gail Ruhl, Plant Diagnostic Lab Director
12:00 noion-1:00 p.m.	Lunch on your own
1:00-2:00 p.m.	Crabgrass and Goosegrass Control Updates Zachary Reicher, Turfgrass Research
	Scientist
2:00-3:(8) p.m.	Benigrass Disease Review Don Scott, Turfgrass Pathologist
3:00-3:15 p.m.	Break
3:15-3:45 p.m.	Patch Disease Update Don Scott
3:45-5:30 p.m.	Fungicide Programming and Understanding Resistance Don Scott
	Thursday, November 30, 1989
\$:00-8:45 a.m.	Turfgrass Fertilizers Clark Throssell, Turfgrass Research Scientist
8:45-9:45 a.m.	Fertilization Strategres Clark Throssell
9:45-10:00 a.m.	Turfgrass Management Teaching Program at Purdue
10:00-10:15 a.m.	Break
10.15-11:00 a.m.	Midwest Regional Turfgrass Foundation Activities Jeff Lefton
11:00-12:00 noon	Pon Annua Controls and Growth Regulator Usage Clark Throssell
12:00 noon-1:00 p.m.	Lunch on your own
1:00.2:00 n.m.	Ornemental Red Ward Control Rhill Companies Ornemental Hastinghusia

1:00-2:00 p.m. 2:00-3:00 p.m. 3:00-4:00 p.m. 4:00-6:00 p.m. Danantenial Bed Weed Control -- Phil Carpenter, Ornamental Horticulturist Ornantenial Insect and Their Control -- Tim Gibb, Extension Entomologisi Ornantenial Diseater and Their Control -- Paul Pecknold, Extension Plant Pathologist Administer 3b and 3a Exam -- Dick Kercher, Indiana State Chemist Office Seminar Location -CCH Credits -Advanced Course (Purdue University, West Lafayette, IN) Category 3B/10 - 9 units (requested) Category 3A - 7 units (requested)

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