AN OPEN LETTER TO PENNCROSS CUSTOMERS ABOUT THE SUPPLY OF PENNCROSS

The growers of Penncross Bentgrass seed are very happy with the acceptance you, the Golf Course Superintendents, architects and club officials have given to Penncross. As growers, we are doing our best to provide a plentiful supply of Penncross seed to meet the demand you have created by utilizing Penncross on tees, fairways and greens.

Our Penncross fields take a great deal of preparation prior to hand planting the stolons. Hand rogueing the fields during the growing season is also expensive and requires tedious work. We insist on giving you the highest quality seed available and we will not sacrifice quality for quantity.

We ask for your patience while we expand our production to take care of the increased demand. Our crop plantings will be expanded 25 percent this fall and this should result in a good supply of Penncross seed for next summer's harvest.

In the meantime, don't accept a substitute. We will maintain our quality seed production and we will make every pound of seed that meets the quality standards available to the market. If your supplier is temporarily out of seed, please be patient. Weather conditions have caused a 25% crop failure, so your supplier is doing the best he can, and we will do the best we can to spread it equitably.

Thank you for planting more and more Penncross. We will do our very best to keep your confidence and to provide you with a plentiful supply of high quality Penncross seed.

Sincerely,

BILL L. ROSE, *Chairman*
Penncross Bentgrass Growers Association

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KANSAS CITY, MISSOURI 64101
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PENNCROSS BENT GRASS

Photographed at Mission Lakes Country Club, Desert Hot Springs, California

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GRAFFIS *from page 8*

foresighted decisions.

The Cypress Lake situation is similar to that of other private country clubs. The club is the first private club in an area that is developing swiftly, both commercially and in population. It's 12 years old. It's on ground donated by real estate promoters. It was Nothingsville, populated by alligators, turtles, cranes and other wild birds. It was badly drained, underlaid by limestone that made construction so difficult and expensive that the plans of architect Dick Wilson never were carried out.

Since the club was installed in the growing city halfway between Tampa and Miami on Florida's southwest coast, it has become the nucleus of a multi-million dollar residential development.

Prior to the McNiven survey, Cypress Lake officials were reaching in the dark. That's the case at too many clubs. Even the oldest clubs need to take a fresh look at themselves with market surveys.

Age seems to be the first question considered in most helpful surveys. Members of the family, number of rounds played, meals at the club, guests and other significant questions need to be answered before the directors know what they should be doing about managing the club. Much of the detailed information could be supplied by the manager's records and pro shop information.

Without such information, how can club officials direct the policies and operations of the club? McNiven says, "You've got to look very carefully before you leap with the club member's money."

With what private country club memberships cost, golf and other programs had better give their members value.

The necessity of the club market surveys as a basic guide for club officials probably is pin-pointed when one reads the forecasts that golf club operating costs will be least 8 per cent higher next year. That means management must be at least 8 per cent better or the club loses ground.

And from where we look, the one place where there is no inflation is in information.

Did it ever strike you as funny that there should be debates about who is the world's best golfer but none about who is the nation's best golf course superintendent?

Are there so many golf course superintendents who are so very good, or what?

I used to hear professionals complaining about courses in the PGA championships. This year at Canterbury and last year at Oakland Hills, I heard touring pros say that they've never played on courses in better condition than the one Ted Woehrle had at Oakland Hills and Bill Narker had at Canterbury. Many times have I heard that the PGA was doomed to be a second-rate championship, because it was played in July or August, when even the good Lord couldn't keep a course in first-class condition. *Poa annua* was going, greens, fairways and tees were burning out or being ruined by fungi, insects and acts of God.

It seems that the PGA didn't have much of a chance to get a course in championship condition at the time its championships were played. The situation was uncertain, and the superintendent who heard that his club had accepted a PGA championship was expected to take to drink or cut his wrists.

I think the change came at the PGA championship at Dallas AC course in the fiery summer of 1963. The course was in marvelous playing condition. Temperature was around 100; humidity was high. Nicklaus, the winner, also won the driving contest with his longest shot being, by my fallible memory, around 340 yards. The championship was lost on the par-three holes.

I remarked to the host professional, Graham Ross, "It must kill a superintendent to play a major championship in this weather." Ross replied, "Not our man. He is the greatest." M.H. Veal Jr. was the superintendent. I think it was his father who was in charge of the Southern Hills CC course at Tulsa when the 1958 National Open was played on turf in excellent condition despite blazing heat. Tommy Bolt won with a comfortable margin by staying out of the bermuda rough. □

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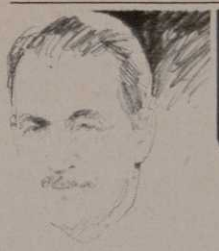

DR. FRED V. GRAU

ANSWERS TO TURF QUESTIONS

CAN YOU REMEMBER?

On my bedside stand lies a small paperback book that I have finished reading only recently. In "The Daughter of Time" Josephine Tey writes intriguingly about the mystery surrounding Richard the Third, supposed villain and murderer of his two nephews, about the year 1503. That was 470 years ago. It was good detective fiction reading, but not half so fascinating to me as what happened in the turfgrass industry in 1963, 1953, 1943 and so on, back to the beginnings of turf in jumps of 10 years. Can you recall what was happening 10, 20, 30 or more years ago?

A book I've just begun is "A Sand County Almanac" by Aldo Leopold, a Special Member's Edition of the American Museum of Natural History. On his poor sandy farm in Dane County, Wis., Leopold cuts down a lightning-damaged burr oak tree, and in a very interesting way, traces history back through the growth rings in the stump. That particular oak got its start about 1865 during a 10-year low in the rabbit cycle, so that it was not ruined as a seedling by bark-hungry rabbits. I am intrigued that Leopold, quite independently, thinks as I do—in 10-year cycles.

Where were we in 1963? For one thing, GOLFDOM had published my "1963 Turf Roundup" in which we discussed qualified superintendents and asked the question, "Are we training enough of them?" Right now I can say that the industry is doing better, but it still doesn't have enough qualified men. We talked about "sanitation," which included basic good housekeeping, such as thatch removal, the judicious use of lime (pulverized and hydrated), keeping the turf as dry as possible and the use of chemical plant protectants. In this period, I was traveling for Hercules, spreading the gospel of slow-release nitrogen as a factor in good turfgrass management. One stop was in the Dominican Republic. I encountered serious trouble with the military authorities at the airport when I returned from Puerto Rico with a 50-pound bag of fertilizer. They released me after two hours of questioning when a Spanish-speaking young woman convinced them that all I had was a bag of fertilizer for the golf course and that I was not going to blow up the Ambassador Hotel where visiting dignitaries were staying.

In 1953, the long collaboration between the United States Golf Assn. Green Section and the United States Department of Agriculture came to an end. That year the Golf Course Superintendents Assn. of America held their annual conference and show in Atlantic City, N. J. Merion bluegrass and Meyer zosia had just begun to have an impact on the turf world. In two more years, the Pennsylvania Turfgrass Council would be formed, but already the foundation for it had been laid. The 1948 USDA Yearbook "Grass" still was one of the best sellers. One year later the historic, Bulletin 576, "Crownvetch for Highway Slopes," would be published based on work done during the previous 10 years. Penncross bent was about to be released, a grass that Pennsylvania gave to the world for the benefit of golf course putting greens everywhere.

Nineteen hundred forty-three reaches back further than many superintendents today can recall. Turfgrass activities were at an all-time low as were memberships in golf clubs, and in the United States Golf Assn. research and teaching had ceased for all practical purposes. We were beginning to hear about a chemical that would cause weeds to "grow themselves to death." Two years later when I assumed the position of director of the USGA Green Section, Dr. Fanny-Fern Davis and Drs. Mitchell and Marth were treating

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GRAU *from page 15*

small plots of weedy turf with 2, 4-D and Carbowax at the Plant Industry Station at Beltsville, Md. Soon after, the American Society of Agronomy recognized turf as part of its prestigious agricultural empire. From then on, turf had a voice.

In 1933, two years out of the University of Nebraska, I earned my B. S. degree at the University of Maryland studying "Chemical Weed Control in Turf." The physical division between the campus where I had my plots and Highway U. S. 1, which runs through the university, was a decrepit barbwire fence. Turf conferences then were only three or four years old and we had only "greenkeepers" on golf courses. Short courses had not yet been proposed. We had just entered a period of recession or depression. The entire Green Section staff virtually was laid off. Money was tight and jobs were few and far between. The National Assn. of Greenkeepers was only a few years old. Two years later (1935) Grau discovered crownvetch on a hillside farm in Berks County, Pa., which was destined to launch a new agricultural industry, hitherto unknown.

In 1923 the USGA Green Section was two years old. Piper and Oakley's book, "Turf for Golf Courses," had been published only six years earlier. I was following a cultivator back and forth through a Nebraska cornfield, having finished high school two years earlier, future vastly uncertain. The USGA Green Section Bulletin was discussing the killing of dandelions with an ice pick dipped in sulfuric acid.

Nineteen hundred thirteen found a turf garden in the Philadelphia area. Mr. Taylor purchased the turf plots from Mr. Olcott in Connecticut and moved them to Philadelphia. The grasses were predominantly fescues, which did not do well in the heat and humidity of southeastern Pennsylvania. The turf plots at Rhode Island were in their 15th year. The most popular fertilizers were bone meal, sulfate of ammonia and horse manure. Guano and Chilean (sodium) nitrate also were used.

The next 10-year jump takes us to 1903. I was then one year old and remember little about anything. Golf was on its way, but courses were primitive as were maintenance methods. Sand greens or mowed pasture sod were considered a great achievement.

A calm dispassionate look at the events of 70 years surely must give us a sense of satisfaction for having achieved so much in so short a time. At this point, it would serve no useful purpose to go back beyond the point where no one living can remember. But let's maintain a "sense of history," so that we can better appreciate the present and plan for the future.

Q—*What can you tell us about the idea of sterilizing soil (or turf) with anhydrous ammonia? We heard that it was discussed at one of the conferences.* *(New York)*

A—The idea seems to have originated in Kansas with Dr. Ray Keen, who tried it on a small scale on the turf plots near Manhattan. William E. Lyons Sr. of Canal Fulton, Ohio, actually built a machine and sterilized soil and turf on a field scale. In his lectures at Penn State and at Purdue, he said that he used 400 pounds to the acre of actual N (about 600 pounds of anhydrous) at a cost of $21 an acre for material. Excellent kill of seeds and plants was reported to a two-inch depth. Turf seeds and plugs of sod planted 24 hours later flourished, stimulated by the nitrogen. Later some deep-rooted weeds (dandelion, quackgrass) emerged from growing points below the two-inch level. Lyons is encouraged to further modify his equipment for greater effectiveness. He is enthusiastic about the prospects of this new approach to sterilization.

Q—*We have read your column for years and we notice that you often refer to potassium sulfate (K_2SO_4). We infer that it is preferable to muriate of potash (KCL). Has the trade developed distribution of a fine powdered soluble K_2SO_4 that can be put into the spray tank without clogging the nozzles with gunk? (Pennsylvania)*

A—I shall continue to emphasize K_2SO_4 because I believe that the sulfur is a big plus for intensively-managed turf. I've been riding herd on some of the big companies that say they are producing, or going to produce, the fine powdered soluble sprayable potassium sulfate. To date I've had some good promises (and a lovely sample), but can't seem to find the product in the market place where golf course superintendents can buy it. About all I can say is, "Keep the faith." □

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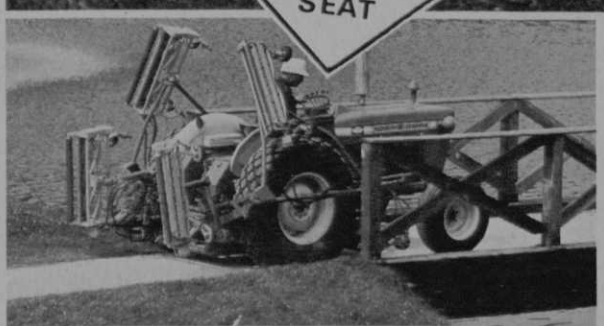

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DR. JAMES B. BEARD

TURFGRASS RESEARCH REVIEW

OVERSEEDING: WHICH GRASSES ARE BEST

1971 overseeding results in south Florida. *A. E. Dudeck and E. O. Burt. Florida Turf. 4 (5):3-6. (from the University of Florida Agricultural Research Center, Fort Lauderdale, Fla. 33314).*

The objective of this investigation was to evaluate monostands and polystands of various cool season turfgrasses for use in overseeding dormant bermudagrass putting greens under the conditions of southern Florida. Eighteen individual cool season turfgrasses and six cool season turfgrass mixtures were evaluated. The specific cultivars evaluated included (a) Lucerne, Manhattan, Medalist 2 and Pennfine perennial ryegrass, (b) Italian ryegrass, (c) Park, Prato and Primo Kentucky bluegrass, (d) Pennlawn red fescue and (e) Dawson chewings fescue. The ryegrasses were seeded at 45 pounds, the fine leafed fescues at 20 pounds and the Kentucky bluegrasses at 10 pounds per 1,000 square feet.

The seedings were made December 16th onto a semi-dormant Tifdwarf bermudagrass green. Replicated plots of 25 square feet in size were utilized. The overseeding procedures included extensive vertical mowing, four times over the area in four different directions. This was followed by seeding. Subsequently, the green was topdressed sufficiently to cover the seed and lightly dragged with the back of a rake.

The cultural system following planting included daily mowing at one-quarter inch. The area received an initial fertilization of 16-4-8 containing secondary and trace elements. Subsequently, ammonium sulfate and urea were applied alternately at monthly intervals. All fertilizer applications were made at an equivalent rate of one pound nitrogen per 1,000 square feet. Preventive fungicide applications were made at five-day intervals during the initial 30-day establishment period. An alternating selection of fungicides was used to provide broad disease control.

The various overseeding treatments utilized were evaluated in terms of establishment rate, color, leaf texture, mowing quality, vertical shoot growth rate, disease proneness and effectiveness of spring transition back to bermudagrass.

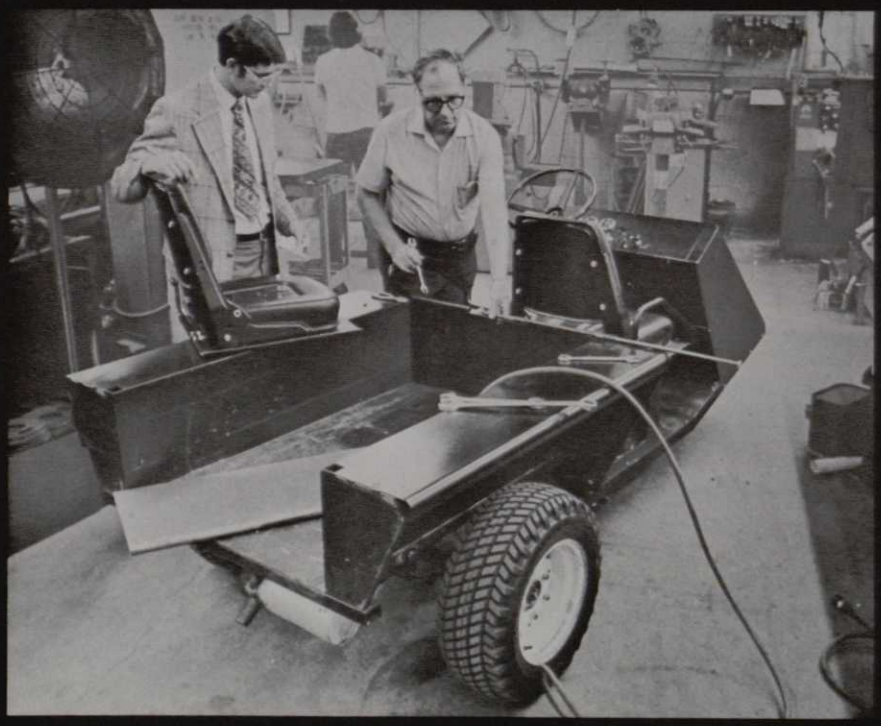
The results of this study will be discussed in terms of each specific type of data evaluated. First, the establishment rate. The ryegrass possessed the most rapid establishment rate with no significant differences being observed among the various cultivars. No differences were observed between the Kentucky bluegrasses and fine leafed fescues during the first week. Subsequently, the fescues rated intermediate in establishment whereas the Kentucky bluegrasses were slowest. Among cultivars of these species, Park was superior to Prato and Primo, whereas Dawson ranked superior to Pennlawn.

Thirty eight golf course superintendents from South Florida visually rated these experimental plots for turfgrass quality five weeks after seeding. As a group, the ryegrasses ranked superior along with those mixtures containing high percentages of ryegrass. The Kentucky bluegrasses ranked lowest with the fine leafed fescues being in the intermediate range. Italian ryegrass ranked poorer than the perennial ryegrass cultivars.

Vertical shoot growth measurements were made by collecting clipping weights approximately 10 weeks

continued on page 21

Hold everything!



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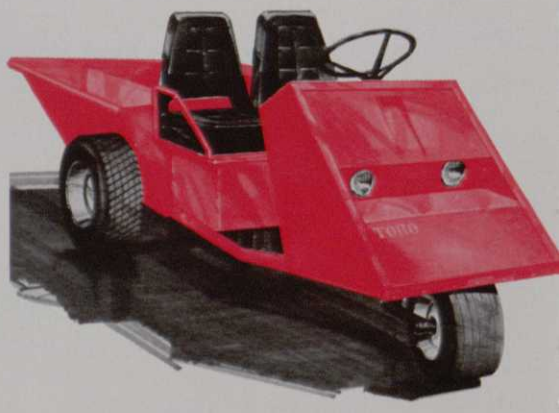

(Our competition's green with envy!)

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