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FRONT COVER: Photos show the course design, the HARVEST people and the irrigation system that Bill Nanini is counting on at Tucson National Golf Club in Arizona.

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### GB's Brooks is now Associate Publisher

Dayton Matlick, Senior Vice President of the Harvest Publishing Co., has announced the appointment of James R. Brooks, National Sales Manager, as Associate Publisher for GOLF BUSINESS. In making the appointment, Matlick stated that, "Jim assumes direct responsibility for all phases of the magazine's operations." Brooks will continue to serve as national sales manager and remain based in Atlanta.

As Associate Publisher, Brooks announced that GOLF BUSINESS would begin publishing the standard sized format with the January, 1981 issue. He said, "Visits with superintendents, owners, suppliers, educators and other readers over the past several months indicated strong support for returning GOLF BUSINESS to the standard size."

Brooks, 40, joined the Harvest Publishing Co. as National Sales Manager in July, 1979. Previously, he was the Director of Marketing and Sales of the Golf Course Superintendents Association of America.

## EPA finds dioxins in 2,4-D samples

The Environmental Protection Agency (EPA) and Agriculture Canada have found dioxins in 2,4-D samples. While no regulatory action has been taken yet, officials of both said that decisions would be made before the next 2,4-D season, March in the U.S. and June in Canada.

EPA gave manufacturers 10 working days to submit technical

samples of the 2,4-D used in the U.S. and a description of the manufacturing process.

Three different dioxins were found in the Canadian samples, but none were the most acutely toxic isomer. EPA is currently studying toxicity data on the three.

## DOW submits final 2,4,5-T preview

Dow Chemical's lawyers have given EPA an overview of the final arguments they will use in the 2,4,5-T, silvex cancellation hearing. They plan to present the case in 10 segments, using the testimony from 34 witnesses. One of the

arguments, which comes under the

head "Sources of TCDD (dioxin) in the Environment", Dow will argue that "the widespread presence of dioxins from sources as diverse as municipal incinerators, powerhouses, automotive exhaust systems and home fireplaces, makes it unreasonable to assume that a significant portion of the TCDD in our environment comes from the registered uses of 2,4,5-T and silvex." The arguments will also include testimony on and an analysis of the Alsea II study. Dow intends to present the argument that available evidence suggests that man is not as susceptible to TCDD as are laboratory animals. but is actually "peculiarly resistant to the effects"



Dr. Fred V. Grau, President of The Musser International Turfgrass Foundation, presents the Grau Trophy to the University of Maryland Golf Club team which won the second annual Mid-Atlantic Turfgrass Boosters Tournament at Baltimore CC's Five Farms course with a score of 122 for the two best-balls of the foursome. Left to right are: Mike Camp, Lou Strieter, Dr. Grau, Tom Roberts and Frank Sanzaro. All are members of the University of Maryland Golf Club. Proceeds were shared by the Maryland Turfgrass Council and the Musser Foundation.



Bob Orazi, chairman of the second annual Mid-Atlantic Turfgrass Boosters tournament, presents the Mid-Atlantic Association of Golf Course Superintendents Trophy to the low gross winners from Maryland G&CC. They scored 138 for the two best-balls of the foursome. From left are: Maynard Morrison, golf chairman; Ron Hall, Superintendent and president of the Mid-Atlantic Association; Paul Haviland, golf professional; Larry Delclos, club President; and Orazi, Superintendent at Hunt Valley GC.





Brief bits of news from in and around the golf business.

An all-time speed record for plaving an 18-hole round of golf has been set. Golf Digest reported in their November issue that Jerry Dunkason, 23, played the 9-hole University Village Golf Course in Santa Barbara, Calif., twice, covering 6,083 yards in 29 minutes, 49.9 seconds. His score was 47-49, and was achieved using only a 5-iron, pitching wedge and a putter. The rules for a speed round are only that the course be at least 6,000 yards long, that the golfer remain on foot at all times and that he follow the Rules of Golf.

### 3C NG. XC.

Next time a golfer tells you the greens are lumpy, throw this at him: The average golf shoe has 12 spikes. The USGA has computed that the average golfer takes 28 paces per green. 28 times 24 (two shoes) equals 672 impressions per golfer. Assuming 200 rounds are played per day, the green receives 134,400 impressions per day, 940,800 impressions per week, and 28,224,000 holes are made in it per month!

### 30 XC. 30

Jack Nicklaus has teamed up with the Ash Grove Cement Company to develop a 3100 acre residential and recreational area south of Kansas City, in Johnson County. The project will include a Nicklaus-designed course.

### 5G 39 3G

The driving range at Red Oaks in Madison Heights, Michigan, will be covered by a heated, airsupported dome this winter. Golf Domes, Inc. of Dearborn will lease the facility and pay a percentage of the gross revenue to the Oakland County Parks.

### M. 5¢

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The New Mexico GCSA elected new officers at their September meeting. They are: Harold Vaubel, Albuquerque CC, President, Gary Grigg, CGCS, Tanoan CC, Vice president, Jim Aitkens, Kirtland AFB, Secretary, and AI Kline, University of New Mexico South course, Treasurer. The Board of Directors are: Ted Martinez, Inn of the Mountain Gods, Fred Chavez, Rio Rancho CC, Raliegh Proffitt, Paradise Hills CC, and Mike Apodaca, Horizon CC in Belen.

The annual meeting was held at Tanoan CC in Albuquerque with Richard Phelps, President of the American Society of Golf Course Architects, and Mike Bavier, of the GCSAA, as guest speakers. Gary Grigg was awarded the

superintendent of the year award for 1980.

### NC SC. SC.

New Mexico State University was the site of the Southwest Turfgrass Association's annual conference during mid-October. Dr. Jim Watson, Toro, and Joseph Finger, golf course architect, Dr. Doug Hawes of the USGA Green Section, and Dr. Jerald Horst, Texas A&M in El Paso, were among the guest speakers. New officers elected were: President, Gary Grigg, CGCS, Albuquerque; Vice president, Harold Vaubel, Albuquerque; and Secretary/Treasurer, Dr. Arden Baltensperger, Las Cruces. Board of Director members are: Bruce Erhard, Las Cruces (and a past president); Dr. Jerald Horst, El Paso; Ted Martinez, Ruidoso; Al Kline, Albuquerque; and Horace Molina, Albuquerque. Ted Martinez was the winner of the annual tournament, held at the new Picaho Hills CC, with a 71. The conference had a record attendance

J I Case and Cummins Engine Company have joined forces to manufacture a new line of advanced-design, fuel-efficient diesel ingines in the 50-250-hp range. The engines are scheduled for prototype production in 1981 and market introduction in 1983. The agreement is subject to approval by the boards of directors of Cummins and of Tenneco Inc., of which Case is a wholly-owned subsidiary.

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### 30 XC. NG.

Kawasaki Motors Corp., Engine Division, has appointed Marco, Inc., in Idaho Falls, Idaho, as a distributor for their two and four cycle engines. Kawasaki engine sales and service for Idaho, Montana, Utah, and parts of Wyoming and Nevada will be handled by Randy Robinson from Marco's 25,000 sq. ft. Idaho Falls facility.

### 36 32 39

LESCO Products in Elvria, Ohio, is now plating its custommade bedknives with a zinc coating to improve its appearance and handling and to avoid build-up in the grinding stone. LESCO Products is a division of Lakeshore Equipment & Supply, Co.

> SC NG

NC

### Wisconsin Marine, Wisconsin manufacturers of Bob-Cat mowers and snowthrowers, has changed their name to Ransomes Inc. following the development of a new corporation, which is a subsidiary of Ransomes Sims and Jeffries Ltd. of Ipswich, England. Ransomes will

retain its separate management and control.

### 3G 52 36

Robert C. O'Knefski, Cooperative Extension Agent from Nassau County, New York, retired at the end of October. A graduate of Penn State and holder of a Master's degree from Rutgers, O'Knefski has taught at the University of Connecticut and was a turf consultant for O.M. Scott & Sons, in addition. He was the first recipient of the Citation of Merit from the New York State Turfgrass Association in 1978.

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Western Texas College, in Snyder, Texas, now offers a new, expanded program of Golf Course Operations and Landscape Technology. Completion of this two-year program will qualify a graduate for an Associate in Applied Science degree, or credits may be transferred to a four-year university program. The curriculum is aimed at training working superintendents, assistant superintendents, foremen and crew chiefs with an adequate technical and classroom background, giving them two years of 'hands-on' experience in the field working

own golf course is used as part of the learning facility. Interested persons may contact the Director of Golf Course Operations/Landscape Technology at WTC by calling 915/573-8511.

### XC . 3G XC

Eaton Golf & Tractor has two managerial changes at their Syracuse, New York operation. Roger Lind is Institutional Sales Manager and will be responsible for all sales of commercial products in central New York, including Rochester and the Southern Tier. Jack Trexler is Parts Manager and will be responsible for the disbursement of all parts as well as inside sales including irrigation products.

### XC. XC. XC

Mike Robinson has recently been named Vice President of Marketing for Pickseed West, Inc., in Tangent, Ore. Robinson, a 9year veteran of the Northwest seed industry, will continue to be responsible for the company's proprietary marketing of turf and forage seed. He will also coordinate Pickseed's research and variety development.

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## Water, redesign, spectators and weather are aces in an Arizona tournament gamble

When it comes to taking calculated risks, Bill Nanini has to rank right up there with the best of them. Two years ago, he bet the reputation of his prestigious Tucson National Golf Club and Estates, not to mention half a million dollars, on an extensive facelift. One hundred thousand cubic yards of dirt on 10 of the 18 existing holes had to be moved, 103 acres of automatic irrigation installed and everything from tees to traps redesigned and put back together in just 171 days. At stake was Tucson National's 14-year hold on the PGA's Joe Garagiola Tucson Open tournament.

From outward appearances, Nanani lost the bet. On an inspection visit three months before the pros were to arrive in February, a PGA survey team termed the revamped course unsuitable. Despite all arguments to the contrary, the 1979 tournament was staged in town at Tucson's Randolph North Municipal Golf Course.

This year, in the midst of an unseasonable monsoon, the Open returned to Tucson National, but for the last time, as it turned out.

While Nanini technically has one more year on his contract with the Tucson Conquistadores, the tournament's sponsoring organization, he recently voluntarily cancelled the agreement so the Open could be played at Randolph in the future—closer to the heart of town, and thus more likely to draw the larger spectator galleries in this era of gas-consciousness that will generate the revenues necessary to support the Tucson charities which depend on the event.

"We've enjoyed the national publicity and television exposure," Nanini concedes readily. "It's been good for us in that respect. But we have members who are upset because they can't use their own golf course the week during the tournament—they don't like the crowds, and they live here."

While it may be fun to have the game's best as guests on your course, Nanini envisions Tucson National as more of a golf-oriented community than an orthodox country club. The PGA is in town for just a week. The rest of the year, there are homes being built and sold, golf schools drawing students from around the world, and executive conferences above and beyond the demands of a growing membership.

Nor is the PGA sacrosanct. Given his choice, Nanini claims he would like nothing better than to host the U.S. Open. For that, he knows he will need a tough, challenging course. For that, Nanini set about changing the face of Tucson National.

The USGA's U.S. Open connection is in all seriousness, and Nanini is doing everything in his power to prepare the course to meet that organization's exacting standards. And more than just a golf course is involved. According to Nanini, the USGA looks for a host city that can provide spectator galleries of some 25,000 per day. Tucson and Phoenix are fast-growing communities expected to have populations of 750,000 and 1.5 million respectively within the next few years.

The Tucson Open has attracted an average of more than 25,000 spectators, Nanini maintains, and adds that the city would be every bit as hospitable in June as such past U.S. Open sites as Washington, D.C., Atlanta and Tulsa.

To be sure, daytime temperatures in Arizona are high, but they are accompanied by virtually no humidity and an almost non-existant possibility of rain. Thus, not only could such a prestigious tournament be played with confidence in the cooperation of the elements, but it could be played in more comfortable conditions than those of the hot, muggy South, since nighttime temperature drops of 30 to 40 degrees are common.

Nor has Nanini overlooked the other creature comfort criteria for holding a major event. Good hotel and motel accommodations are available within a few miles of National, and Nanini is upgrading the club's own facilities with an eye toward being able to accommodate as many as 250 players and officials right at the course.

USGA commitments are made five years in advance, he notes, predicting, confidently, "We will be ready within four years."

A hillside nine holes will go into play later this year, bringing the club's total to 27—allowing the front nine to be given extensive renovating under more placid conditions, while 18 holes remain in play. The modest tennis



complex is being expanded to 20 lighted courts.

Executive conference facilities and guest accommodations are being tripled. Under a recently signed fiveyear contract, Golf Digest will hold 10 to 12 schools a year at National, and the club will build a special golf schoolhouse, complete with videotape facilities and more extensive practice areas.

Perhaps most importantly, the Pima County Board of Supervisors has approved Nanini's plan to build an additional 1,260 units of housing on 456 acres of the club's open desert terrain, surrounding the 27 holes.

The Nanini family first came to Arizona in 1939, when his mother was advised to leave Chicago's blustery climate due to an asthma condition. His father, Sam Nanini, was a successful Midwestern road builder who recognized the potential of the open and around what was then a sleepy village of 15,000 in the shadow of the Santa Catalina Mountains.

Today, Tucson is a vigorous city of half a million, and the family's holdings northwest of town have handsomely justified that earlier gamble.

Tucson National began with an 18hole golf course on the banks of the Canada del Oro wash. Shortly after the course opened, the PGA relocated its Tour event, first staged in 1945, from a course in town to the Nanini enclave 11 miles out. Over the years, guest accommodations and housing were added: condominiums along the 7th, 8th, 9th, 11th, 13th and 14th fairways; custom-built single family homes on hillside sites overlooking the course. It all looked peaceful and prosperous, but Nanini, a selfconfessed perfectionist, was not satisfied.

The golf course was the centerpiece, and the golf course was not quite right. When the course was originally constructed in 1961, Nanini was splitting time between the family's Chicagobased road building business and the Tucson holdings, and the logistics of supervising construction in absentia resulted in a fundamental design oversight. On the original plans, the greens were too large for Nanini's tastes (at 65, he remains a lowhandicap golfer, playing in seniors' tournaments in the U.S. and overseas) but when their size was reduced, the traps were not brought in accordingly. The golfer in Nanini could never be content with that.

Even more vexing was the problem of watering the elongated, 260-acre course. In Arizona, nothing is more precious than water, and Tucson National's outdated manual irrigation system required as many as three water crewmen 24 hours a day, seven days a week during summer months to do an unabashedly inadequate job. If the golfer in him was aggravated by trap placement and green elevations, the businessman in Nanini was even less able to tolerate the water situation. The two concerns combined to spark the momentous decision to tear out the entire back nine and install an automatic irrigation system.

"It's very difficult to convey what we did," says Greg Graham, course superintendent, "especially to people who do not understand the climatic processes at work here. You don't take something that's been 16 years growing, rip it up as badly as we ripped it up, and get it back into playing condition this quickly without a tremendous amount of work and care.

With the kind of grass we have, it's unreal how quickly we have come back." (Fairways at Tucson National are 419 Tiffway Bermuda, with Penncross Bent greens.)

Water was an important consideration in hiring Graham in 1977, acknowledges Nanini. Something very obviously had to be done, and Graham had extensive background in irrigation systems, including close working relationships with The Toro Company. Graham estimates more than a thousand hours went into designing a system for just the back nine, an exacting process ranging from aerial photographs to days of discussion with Tom Gilchrist of the Norton Corporation, the Phoenix-based Toro distributor company that provided the equipment and expertise.

"Irrigation is the thing here in Arizona," Graham emphasizes. "Without it, you don't have anything. And it's got to be 100 percent, or you don't have anything either. We had to have better control of what we watered and we had to eliminate the waste in time and efficiency."

On May 8, 1978, the Cats descended on the fairways and greens, and the race with time was on. During the reconstruction, there were occasional light moments—finding utility mains even the local gas company didn't know about, or playing mumblety-peg with NBC's television cables—but mostly it was deadly serious work. "We learned a lot from the back nine," says Graham, "and the No. 1 thing we learned was don't do something like this in the summer. The growing season is too short and the temperatures too hot—somehow, you have to water all the way through. I know I blew one or two main lines right out of the ground, because as fast as the guys had them in, I was right behind turning on the water. I needed it that badly."

Although trees were saved and special plantings left undisturbed wherever possible, the swiftness and completeness of the change was a major shock for both members and staff. Most tees were changed, fairway traps and bunkers were relocated, and greens were elevated and more clearly defined with close-in traps. Nanini knows he lost members in the turmoil, and the PGA's decision to move the 1979 Open to an adequate but uninspiring municipal course was a blow that still rankles. Nanini and Graham both insist unemotionally that the course was ready for play in ample time for the tournament. And, indeed, members were playing it the week of the tournament.

Nanini and Graham think the sponsors and the PGA acted too quickly, and on an imperfect understanding of what was being attempted, especially in terms of growing conditions in Arizona.

That, however, is past. The pros who came back to Tucson National last February pronounced the renovations largely successful, and their judgment merely echoes the ones which have been made daily by the club's staff. Water savings are especially noticeable. The front nine is still on manual, but the back nine can be completely taken care of by one man in 12 hours. In addition, points out Gilchrist, the automated system (a computerized Toro Vari-Time II, which will be augmented with a Vari-Time III as the new nine comes into play this year) is so designed that even in the event of a catastrophic drought similar to California's traumatic experience in 1977, Graham could cut water usage more than 50 percent and still maintain a narrow corridor of grass from tees to greens. With an eye toward Arizona's increasingly tight water supply picture, the new equipment was installed complete with filters to handle effluent water,

should that become necessary.

Now the focus of attention is the hillside nine, designed by Bob von Hagge and Bruce Devlin, who also redrew the back nine. A protege of the late Dick Wilson, von Hagge has laid out the nine with an eye toward the starkly beautiful Arizona landscape. Stately saguaro cactus will stand sentry on the hillsides against the blunt shapes of the Santa Catalinas in the near distance.

"That new nine is going to be absolutely the prettiest you'll see in the Southwest," predicts Graham. "Von Hagge is an artist with soil—he can do

