

Upper photo: The incomparable Gran Cushman.

Lower photo: The economical Trophy.

## BRANDS-4-wheel electric

VISION	COLUMBIA CAR CORPORATION Pargo 804 (4-wheel)	#ESTINGHOUSE Marketeer 436 (4-wheel)
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## → BRANDS-3-wheel electric

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Everything you always wanted to know about golf cars\*

#### \* (but didn't have time to dig out for yourself).

If you're thinking about new golf cars—or even if you just think you might be thinking about them someday soon—do yourself a favor. Mail in the coupon below.

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working for welfare, hospital, business research, educational, veterans' hospital and benevolent causes as the club professionals do.

Last year their National Golf Day was a record \$145,000 net. It went in these grants: \$38,425 to caddie scholarship programs; \$13,775 to United Voluntary Services for use in veterans' hospitals; \$4,350 for the National Amputee Golf Assn.; \$20,300 for United States Golf Assn. Green Section Turf Research; \$18,850 for Golf Course Superintendents Assn. of America scholarship fund; \$31,900 to the PGA Educational Fund; \$17,400 for PGA Benevolent and Relief Funds.

Leading PGA Section in National Golf Day fund raising in 1970 was Michigan with \$15,569. Second was Mid-Atlantic with \$12,392. The Section having the most clubs contribute was Carolinas with 103 clubs and \$6,181 and was seventh place in the nation.

An embarassing last in National Golf Day fund-raising was the Tournament Players' Division, which has the largest part of its \$7 million annual purse a major expense of fund raising for hospitals and welfare operations where tax exemptions and free work do very well for tournament golfers.

To the 1970 National Golf Day the TPD contributed only \$176! There was a blunder somewhere in the TPD that made tournament players look bad on professional golf's own fund raising. The boys really aren't that close. Several of them offered their services free for fund-raising exhibitions, but the figure of \$176 out of \$7 million is in print.

May 31st at Old Warson CC, St. Louis, Mo. (where the Ryder Cup matches will be played September 16 to 18) the National Golf Day challenge round will be played by Jack Nicklaus, PGA champion; Tony Jacklin, National Open champion; Shirley Englehorn, LPGA champion, and Donna Caponi, 1970 Women's Open winner. The lower scores of the men and women contestants, in relation to Old Warson's pars, will be targets for men and women paying the \$1 entry fee, who'll play during a two-week period either side of May 31. Chevrolet will sponsor telecast of the Round of Champions.

Frank Sadler, professional at Bell-(Continued on page 14)



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ingham (Wash.) G & CC for 40 years, has retired and is succeeded by **Tom Parkhurst**, formerly assistant at Broadmoor GC, Seattle ... **Wayne Sloan** now superintendent at Jacaranda CC, Plantation, Fla. He switched from Timuquana CC at Jacksonville, Fla. .. **Ted Kroll** goes from Franklin Hills (Mich.) CC to be professional at Emerald Hills CC, Hollywood, Fla. Ted, once a star of the tournament circuit, now is mentioned as one of the most resultful teachers.

Maurie Luxford, for years tournament director of Bing Crosby's annual pro am, got the Internal Revenue Service to rule that expenses of "celebrities" playing in pro-am events for charities were deductible. He was a spark plug in keeping the LA Open going. He did many good things for golf and did them ably, enthusiastically and free. Just before he died recently, he was appointed advisor to the 1972 National Open at Pebble Beach. Maurie was awarded numerous honors for his services. Unofficially, he was named the Nicest Guy in Golf by many who have been around the game for years.

**Joe Rouse**, one of a fine family in golf, is professional at Bonaventure CC, Fort Lauderdale, Fla. He came from pro post at Normandy Shores, Miami Beach . . . **Joe Marschall** now professional at Pine Brook GC, Gloversville, N.Y. He was assistant to Billy Farrell at Stanwich CC, Greenwich, Conn.

Mike Souchak at Oakland Hills CC (Detroit District) gives away \$400 worth of tees and \$300 worth of peppermint candy a season in his pro shop. Mike says it's good business. He sells 1,200 dozen golf balls a year; most of them personalized with name markers he has in the shop. The tees and candy are in large bowls which reminds me of a time when George Low Jr. was an assistant, and a member reached into a bowl and came up with a fistful of tees. "Whatcha gonna do, heat your house with wood?" George asked. Members at the new de luxe Innisbruck apartments-club development at Tarpon Springs, Fla., where Mike is in residence in winter says that Mike is a bright reason for the attractiveness of the place.

Looks like here we go again in the battle of the PGA versus the landlord. PGA's lease of office space at John

MacArthur's Palm Beach Gardens is due for renewal in a couple of years and with it the sponsorship of the PGA National golf courses. Those PGA angles, plus the annual PGA show, numerous winter tournaments, the big circus of the 1971 PGA championship and the up-coming world All-Star pro show of the International Golf Assn. have added and will continue to add millions of dollars in sales value to the scrub land out in Nothingsville that the shrewd John picked up for pennies, promises and trading stamps and made a very attractive residential area.

Whether or not the wasteland northwest of Palm Beach might have been developed as quickly without the PGA connection, even with Mac-Arthur's credit, cash and lawsuits, is anybody's guess.

The guesses, of course, will be directed by lawyers. The wily MacArthur is no stranger to the machinizations of the legal arena.

Keep your shirts on boys, or you may get your backsides burned. It'll be a long time, if ever, before the PGA learns not to be taken by real estate interests. PGA hasn't made a nickle out of Palm Beach Gardens, Dunedin or Pacific Coast real estate promotions, which have handled canny professional golfers like old time country boys standing in front of the sideshow tent.

The PGA-MacArthur lease renewal argument is funny if you're safely out-of-bounds. It already is at the point where talented guys with low boiling points are putting their opinions in writing and their opinions of each other start with something like "dirty crooked son of a bitch" being practically a term of endearment.

Warren Orlick, as PGA president, gets his baptism of fire with the lease fight. Luckily he is a "wait-a-minute" guy and the situation may cool down to normal business IQ on both sides.

**Russell Hurt** returns as Twin Hills superintendent after being superintendent at the building of Shangui-La Lodge course at Afton, Okla., which will open soon.

#### Correction

In the March issue, page 29, of Swinging Around Golf, Al Baka was mentioned as being professional at Purpoodock Club, Cape Elizabeth, N.J. The Purpoodock Club is located in Cape Elizabeth, but in Maine.

#### Why is it a 4-Wheeler?

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Congress has set 1975 as the deadline for eliminating harmful exhaust from cars. The electric CAROCHE *will go* 36-54 holes on hilly courses, without the pollution, smoke, noise, odor or fire hazard of gas cars. In addition, independent studies have proven electric vehicles cost considerably less to operate and maintain than those powered by gasoline engines.

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That's the story for CAROCHE in 1971.

#### Why don't you at least ask for a demonstration?



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by Dr. James B. Beard TURFGRASS RESEARCH REVIEW

## Evaluation of various types of mulches

Mulches for grass establishment on fill slopes. A.E. Eubeck, N.P. Swanson, L.N. Mielke and A.R. Dedrick. 1970. Agronomy Journal. 62(6):810-812. (from the Department of Horticulture and Forestry, University of Nebraska, Lincoln, Neb. 68503).

The objective of this study was to evaluate the effectiveness of 17 different mulching methods in establishing an adequate grass cover. The experiments were conducted on steep 2:1 fill slopes in eastern Nebraska that had a silty clay, loam soil texture. Following preparation of a firm uniform seedbed, the fertilizer was lightly incorporated into the surface of the soil at a rate based on the soil test results. The area was seeded to smooth bromegrass that was raked lightly into the surface of the seedbed.

Eleven mulch treatments were established September 6, 1966; eight more mulches were included in a study established August 30, 1967. The mulch treatments were asphalt, bark dust and asphalt, corncobs and asphalt, prairie hay and asphalt, fiberglass and asphalt, wood chips and asphalt, wood shavings and asphalt, excelsior and asphalt, excelsior, excelsior mat, excelsior and wood cellulose, wood cellulose, compost, jute net, NC 1556L polymer and an unmulched check treatment. The plot size was approximately 9 by 18 feet. The treatments were replicated twice in a randomized block design.

The mulch treatments were evaluated in terms of their effects on soil temperature, soil moisture content and grass cover achieved during the critical period of seed germination and seedling establishment. Soil temperatures were measured at the 0.5 inch depth at 6 a.m. and 2 a.m. Soil moisture determinations were made on two-inch diameter by 0.5 inch deep soil cores taken at two random locations within thirds of each plot. Grass cover evaluations were determined by density counts using random samples within quarters of each plot followed by dry weight determinations of the total vegetative cover present.

Excelsior and excelsior mat had the greatest moderating effect on soil temperatures which averaged five to nine degrees F lower than the unmulched plots on clear days. A second group of mulches which provided significant, although somewhat less temperature modification, included jute net, prairie hay and asphalt, corncobs and asphalt, wood chips and asphalt and wood shavings and asphalt. Soil temperatures under these mulches averaged three to five degrees F lower than unmulched treatments. The other mulch treatments did not produce temperature moderating effects significantly different from the unmulched check treatment

Mulches which contributed to a substantially higher soil water content included excelsior mat, excelsior, asphalt, prairie hay and asphalt, bark dust and asphalt, and wood shavings and asphalt. A number of other mulches contributed to improved soil moisture although at a significantly lower level than the other treatments listed.

An assessment of the grass cover in terms of shoot density and total dry weight production showed the excelsior to be superior. Other mulches that produced fairly good vegetative covers included excelsior, jute net, prairie hay and asphalt, wood chips and asphalt and fiberglass and asphalt.

Comments: The practice of mulching ensures rapid uniform turfgrass seed germination and establishment. It is a particularly valuable practice where there is a high erosion probability or in areas that cannot be (Continued on page 20)



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irrigated. A mulch should serve two functions: (a) control erosion and (b) provide a favorable microenvironment for seed germination and seedling growth.

The erosion control not only stabilizes soil from the erosive action of wind and water, but also prevents the displacement of seed and fertilizer. Mulching also minimizes surface crusting problems. This improves water infiltration into the soil and reduces water loss through surface runoff.

The favorable microenvironment provided by a mulch should include (a) a moderation in temperature extremes, (b) improved, higher soil moisture levels resulting from a reduction in the evaporation rate and (c) reduce wind movement across the soil surface that can increase the moisture loss.

Straw and prairie hay have been effective mulching materials for many years. The study reported in this review, plus several others, indicate that some of the newer synthetic mulches, such as excelsior mat, excelsior and wood chips plus asphalt, provide adequate soil erosion con-



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trol as well as a favorable microenvironment for successful establishment of a vegetative cover. The wood cellulose mulches have failed to provide an adequate microenvironment for seedling development where periodic moisture stresses are experienced. The fiberglass and asphalt mulch combination has not been effective in successful establishment of vegetative cover and is prone to severe shock erosion.

Fusarium patch experiments with new fungicides. C.J. Gould. 1970. Proceedings of the 24th Annual Northwest Turfgrass Conference p. 89. (from the Western Washington Research and Extension Center, Washington State University, Puyallup, Wash.).

This study involves a continuing evaluation of new fungicides for the control of *Fusarium* patch (*Fusarium nivale* Fr.). The experiments were conducted on two different experimental turf sites in the Puyallup, Wash., area. Fungicides under evaluation included benomyl, Bromosan, Fore, thiabendazole, Calo-Clor, PMA and a wettable sulfur.

Fore (Dithane M-45) applied at eight ounces per 1,000 square feet has been one of the better fungicides for Fusarium patch control under westconditions. ern Washington Benomyl (methyl l-butylcarbamovl) -2-bensimidazole-carbamate) has been the best of the new fungicides for the control of Fusarium patch in the recent tests. Comparisons of the one and two ounce per 1,000 square feet application rates at two, three and four week intervals indicate that the best control was achieved with the two ounce rate of benomyl applied every two to three weeks in 10 gallons of water per 1,000 square feet. Bromosan (a mixture of PMA, thiram and tribromo salicylanilide) is another new fungicide that shows promise when applied at four ounces per 1,000 square feet.

Comments: Fusarium patch, sometimes called pink snow mold, should not be confused with Fusarium blight.

It appears from the report that there are several promising new fungicides for the control of *Fusarium* patch. This development is quite timely because of potential legislation that may restrict the use of the heavy metal fungicides that have been used so successfully on turfs for many years.