than you gain every time.

To get back to factors affecting water use, water at the stomate comes through the plant from the roots and into the roots from the soil. Roots vary in extent and efficiency. The most effective portion of a root is near the tip where active growth takes place and where thin-walled root hairs provide extra absorptive capacity. Old roots are covered with corky tissue and absorb water much more slowly. This means that, assuming soil mositure is available, plants with actively growing roots can take water up better than those whose roots are old and stalled. Grass roots are not perennial. They not only get old, but they die, usually in a matter of months, and must be replaced with new ones. Plants with large, young, actively growing root systems can draw from a bigger soil reservoir than those with short roots and they can take up water at higher moisture tensions.

Various research studies with crop plants have shown that root growth is affected less by water stress than top growth. This is logical because the

roots are closer to supplies and also cooler. Less than optimum water rates for tops may still be all right for roots and encourage deeper rooting. This is one of the solid facts behind recomwe talk water use, we're really interested in saving water costs. How can we do this now and what hopes are there for the future?

As a breeder I am confident that



The luxury apparent in this scene is deceiving. It doesn't last long enough, nor happen often enough.

mendations for less frequent, deeper waterings.

Even though water is an excellent management tool and we can manipulate plant growth with it, when varieties can be developed in every turfgrass species that will require less. water for the same quality. We haven't been able to show differences between Santa Ana, Tifgreen and



Does a lot of jobs mechanically that you now do by hand or let go because of lack of labor. Absolutely the most amazing tool for stimulating turf, overseeding fairways, roughs and worn areas, breaking up cores, and for seedbed preparation on new construction. Reduces hand raking to absolute minimum. Removes thatch from existing sod. Works in seed and fertilizer. Smooths areas where frost heavel or more runs occur. Rakes roughs, wooded areas, traps. Maintains gravel drives, parking areas, and more. Acclaimed by leading golf course and park superintendents.

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Carol all

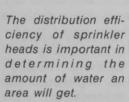
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seeded bermudagrass in our water use studies, but an earlier study showed that long-time stress affected different bermudas differently. Seeded bermuda comes back after drought that knocks out Tifgreen, but Tifgreen looks better on the way down. Until we get the miracle grasses that don't need to be watered, we need to consider ways to use less on the ones we have. When California went dry they learned that roughs didn't need watering, fairways needed good lies only in landing areas and approaching run downhill, too fast, too long, does puddle and run off, and shaded areas and ground covers really don't need as much water as turf in full sun.

What did these discoveries initiate? They rezoned irrigation systems to water areas with different requirements differently. They put check valves in lines so water didn't drain out in puddles around low heads. They relocated heads for more efficient distribution. Programming was adjusted daily as needed instead of a standard repeat that provided extra to avoid trouble. Mowing was raised and fertilizer reduced to cut down grass demand (and save money, too.) Aeration and verticutting were done when it was cool. Ornamentals and ground covers were put on drip systems.

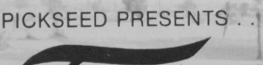
All this allowed "surprisingly successful turfgrass landscape maintenance" with 50-60% of previous water use. I don't think it's surprising. Extra care makes things better and the time to arrange it is before the crunch. We can learn and we can save. Northern California is reaping the benefit in water savings now from a panic crisis situation then. If we're smart, we won't wait for a crisis.





We have shown that there are significant differences in root depth in bentgrasses. Penncross (and I suspect Penneagle) show up well this way. Common bermuda roots seem less infested by ground pearl than Tifgreen roots. This makes common a better bet in Phoenix when things get really dry.

the greens, and when the pinch really came, golf could be played with only greens and tees watered. A talk by A. C. Sarsfield at the 1978 Turf and Landscape Institute in California pointed out a lot of things we could do, and they learned to do. As he said, they learned that water really does



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#### Built for keeps.

The Front Line's 72" mower deck is made of 12-gauge carbon steel, reinforced and arc welded. It has a multi-disc PTO clutch, direct drive to the deck gear box with a sealed and lubricated shaft drive. The hydrostatic transmission is driven by two continuously engaged "A" section belts with self-adjusting tension.

There's no need to worry about overloading the Front Line's engine. The combination of our high torque engine and specially designed mower deck allows you to mow tall weeds and fine grass.

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The Front Line's cut in fine grass is so smooth, you won't believe it was made with three separate blades. That's because the blades overlap 11/2" to reach every inch of grass in the full 72" swath. Also, the cutting height is adjustable to eight positions, from 1'' to  $4\frac{1}{2}''$  in half-inch increments.

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The Front Line's mower deck makes your job easier, too.

one side, so you can trim right up to fences or trees. And it lifts hydraulically for transport over curbs. What's more, a large capacity fuel tank lets you work up to 6 hours between refills.

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## 1980 turfgrass availability and performance data

GOLF BUSINESS presents these charts as a basis for comparison of turfgrass varieties and species across the country. They are not, however, the final word on performance. We strongly urge that you consult before buying in quantity as results may vary within only a few miles of the test sites due to soil types, etc. Many varieties of turfgrass will vary in performance from year to year due to weather conditions. A wet rainy year can make a variety perform well that may not do so well in a hot, dry year. The information here should help you make preliminary decisions and allow you to be specific when talking to extension agents or university researchers about performance.

Fine fescue turf evaluations near Hubbard, Oregon Maintained at moderate fertility and mowed 1 1/4 inches. Turf Quality Ratings 9-1 (9=best)

| Entry Syn AHF Hard Silvana Hard Syn CHE Hard FL1 Hard Syn W Chewings          | Ave.<br>6.9<br>6.8<br>6.7<br>6.7<br>6.6 | % Leaf<br>Spot<br>12/79<br>9.3<br>6.7<br>10.0<br>8.7<br>9.3 | Red<br>Thread<br>1/80<br>9.0<br>9.0<br>9.0<br>9.0<br>6.3 |
|---|---|---|--|
| Halifax Chewings<br>Waldina Hard<br>ST Hard<br>Ilona Chewings<br>Scaldis Hard | 6.6<br>6.6<br>6.5<br>6.4                | 7.0<br>9.3<br>7.7<br>8.0<br>10.7                            | 5.0<br>9.0<br>9.0<br>7.7<br>9.0                          |
| Banner Chewings   | 6.3                                     | 13.3  | 5.0  |
| Longfellow Chewings   | 6.2                                     | 15.0  | 4.0  |
| Syn FC Chewings   | 6.1                                     | 10.7  | 5.3  |
| Dawson SI. Creeping   | 5.8                                     | 18.3  | 6.7  |
| Atlanta Chewings  | 5.7                                     | 13.3  | 6.3  |
| NB-H4-50 Creeping   | 5.7                                     | 13.3  | 4.0  |
| Checkers Chewings   | 5.6                                     | 14.0  | 6.0  |
| Barfalla Chewings   | 5.6                                     | 13.3  | 5.0  |
| HF-28 Chewings  | 5.4                                     | 16.0  | 5.3  |
| HF-27 Chewings  | 5.4                                     | 16.0  | 5.7  |
| HDU-76 Hard   | 5.3                                     | 16.7  | 9.0  |
| Fortress Creeping   | 4.7                                     | 20.0  | 5.3  |

Performance of Kentucky Bluegrass cultivars and selections seeded in a test near Camarillo, CA. September, 1977. Test mowed at 11/2" and maintained at

|                            | moderate-riigirie | it unity.                         |
|----------------------------|-------------------|-----------------------------------|
| Cultivars or<br>Selections | Avg. 11/3/78      | % Fusarium Blight<br>Avg. 11/3/78 |
| CHB-11-A                   | 8.3               | 1.7                               |
| Columbia                   | 8.0               | 1.0                               |
| Sydsport                   | 7.7               | 2.7                               |
| Adelphi                    | 7.3               | 2.7                               |
| Parade                     | 7.0               | 5.0                               |
| 1528T                      | 7.0               | 3.0                               |
| HIB-1                      | 7.0               | 1.3                               |
| Majestic                   | 6.5               | 10.7                              |
| Bonnieblue                 | 6.5               | 15.0                              |
| BFB-35                     | 6.3               | 12.3                              |
| Glade                      | 6.0               | 9.0                               |
| HT-1A                      | 5.7               | 3.3                               |
| Birka                      | 5.0               | 13.3                              |
| BFB-25                     | 5.0               | 19.3                              |
| Baron                      | 5.0               | 21.7                              |
| Touchdown                  | 5.0               | 14.3                              |
| BFC 45                     | 4.7               | 25.0                              |
| BFB-31A                    | 4.3               | 16.7                              |
| 316                        | 4.0               | 30.0                              |
| P-143                      | 3.7               | 36.0                              |
| BFB-31                     | 3.7               | 27.7                              |
| Park                       | 3.7               | 41.7                              |
| LSD at 5%                  | 1.3               | 12¢                               |
|                            |                   |                                   |

| 1980 SEED AVAILAB  | ILITY FOR THE MAJ | OR TURFGRASS SPECIES* |
|--------------------|-------------------|-----------------------|
| SPECIES            | AVAILABILITY      | PRICE                 |
| KENTUCKY BLUEGRASS | 3                 |                       |

| KENTUCKY BLUEGRASS                | AVAILABILITY                                   | PRICE                                    |
|-----------------------------------|--|--|
| Improved Varieties                | Extremely short<br>Many varieties<br>sold out. | Much higher                              |
| Common                            | Short  | Higher                                   |
| PERENNIAL RYEGRASS                | Adequate                                       | Stable                                   |
| Fine-leaf turf types              |  |  |
| Common                            | Short  | Higher                                   |
| FINE LEAF FESCUES                 |  |  |
| Improved varieties and Pennlawn   | Adequate                                       | Higher                                   |
| Creeping red fescues and Chewings | Short  | Higher                                   |
| TALL FESCUES                      | Adequate                                       | Recent sharp increases should level off. |
| BENTGRASS                         | Limited  | Variable depending on variety            |
|                                   |  |  |

| 1980 AVAILABILITY | OF THE IMPROVED |
|-------------------|-----------------|
| KENTLICKY BILLEG  | RASS VARIETIES* |

| GOOD SUPPLY<br>BARON   | EXTREMELY LIMITED SUPPLY MAJESTIC CHERI | NOT AVAILABLE<br>BRUNSWICK<br>PENNSTAR   |
|--|---|--|
| FAIR SUPPLY  | COLUMBIA                                | SODCO  |
| VICTA  | SHASTA                                  | GEORGETOWN   |
| LIMITED SUPPLY   | EMMUNDI                                 |  |
| PARADE   | BIRKA                                   |  |
| RAMI   | SYDSPORT                                |  |
| GLADE  | MERIT                                   |  |
| FYLKING  | VANTAGE                                 |  |
| LILIMING   | NUGGET                                  |  |
|  | TOUCHDOWN                               |  |
|  |   |  |
|  | ADELPHI                                 |  |
|  | BONNIEBLUE                              |  |
| The time of the control of the contr |   | A TOTAL SECTION AND THE SECTIO |

\*Forecasts made by Richard Hurley, Research Director, Lofts Pedigreed Seed, Inc., Bound Brook, NJ.

#### Spindletop Research Farm, Lexington, Ky.

| Kentuck<br>bluegras<br>Quality  | SS  | Tall fe  | escue (  |  |
|---|---|--|--|--|
| Variety   | Avg.  | Variety  | Avg.   | rown Patch<br>13 July                              |
| Adelphi<br>Merion<br>Majestic   | 7.5<br>6.8<br>6.8   | Kenhy<br>K5-27<br>G1-301   | 6.7<br>6.6<br>6.3                                  | 1.0<br>2.7<br>2.0                                  |
| Bonnieblue<br>Rugby<br>Enoble<br>A-34<br>Enmundi<br>Glade<br>Ram I                            | 6.8<br>6.8<br>6.7<br>6.6<br>6.5<br>6.5<br>6.4               | Kenwell<br>G1-307<br>G1-323<br>Ky 31<br>K5-30<br>Momm Fa-8                     | 6.2<br>6.1<br>6.1<br>5.9<br>5.8<br>5.4<br>4.2      | 2.0<br>2.3<br>1.0<br>2.7<br>2.0<br>1.0<br>7.3      |
| Bristol<br>Victa<br>Fylking<br>Pennstar<br>Baron  | 6.4<br>6.4<br>6.1<br>6.1<br>6.1                             | Derby  | 7.1  | ass Quality  |
| Vantage<br>Adelphi-Ken.<br>Birka<br>Arista  | 6.0<br>6.0<br>5.9<br>5.9                                    | Yorktown II<br>Regal<br>Citation<br>Diplomat                                   | 5.3<br>-<br>5.4<br>5.4                             | 2.8<br>—<br>2.3<br>3.2                             |
| Windsor<br>G-22-992   | 5.8<br>5.4  | Pennfine<br>Yorktown   | 5.3<br>5.9   | 2.6<br>2.0   |
| Sydsport<br>Parade<br>Aquilla<br>Nugget<br>Kenblue<br>Piedmont<br>A-20<br>Enprima<br>G-22-982 | 5.2<br>5.1<br>4.9<br>4.7<br>4.6<br>4.6<br>4.5<br>4.3<br>3.5 | Loretta<br>Manhattan<br>Common<br>NK-100<br>Eton<br>NK-200<br>Game<br>Ensporta | 4.5<br>5.3<br>4.1<br>4.0<br>3.9<br>3.6<br>—<br>3.2 | 5.6<br>4.6<br>5.6<br>4.6<br>6.3<br>6.4<br>—<br>5.4 |

<sup>\*</sup> Visual Ratings from 1-9, 9 = best quality. 9 = most Brown Patch (Rhizoctonia solani)

#### Kentucky bluegrass established 1975, U. of California South Coast Field Station (cool, Oct-April; warm, May-Sept.).

| Variety    | Cool (Rank) | Variety    | Warm (Rank) |
|------------|-------------|------------|-------------|
| IS 28      | 8.0 (1)     | IS 28      | 7.5 (1)     |
| Parade     | 8.0 (1)     | Majestic   | 7.1 (2)     |
| Rugby      | 7.9 (2)     | Rugby      | 7.1 (2)     |
| Adelphi    | 7.7 (3)     | Pacific    | 6.9 (3)     |
| Majestic   | 7.4 (4)     | Enmundi    | 6.8 (4)     |
| Bonnieblue | 7.2 (5)     | Parade     | 6.8 (4)     |
| Senic      | 7.2 (5)     | Senic      | 6.8 (4)     |
| Enmundi    | 7.1 (6)     | Adelphi    | 6.7 (5)     |
| A34        | 6.9 (7)     | Vantage    | 6.7 (5)     |
| Enoble     | 6.9 (7)     | A34        | 6.5 (6)     |
| Pacific    | 6.8 (8)     | Enoble     | 6.5 (6)     |
| Vantage    | 6.7 (9)     | Merion     | 6.5 (6)     |
| Baron      | 6.5 (10)    | BM 15      | 6.4 (7)     |
| Victa      | 6.5 (10)    | Bonnieblue | 6.4 (7)     |
| Windsor    | 6.4 (11)    | Windsor    | 6.4 (7)     |
| Aquilla    | 6.3 (12)    | Sydsport   | 6.3 (8)     |
| BM 15      | 6.3 (12)    | Common     | 6.0 (9)     |
| Geronimo   | 6.3 (12)    | CT 14374   | 5.8 (10)    |
| Touchdown  | 6.3 (12)    | Newport    | 5.8 (10)    |
| Glade      | 6.2 (13)    | Baron      | 5.7 (11)    |
| Newport    | 6.2 (13)    | Victa      | 5.7 (11)    |
| Sydsport   | 6.1 (14)    | Aquilla    | 5.5 (12)    |
| Common     | 6.0 (15)    | Geronimo   | 5.5 (12)    |
| Merion     | 6.0 (15)    | Ram I      | 5.5 (12)    |
| Pennstar   | 5.8 (16)    | Pennstar   | 5.3 (13)    |
| Ram I      | 5.8 (16)    | Touchdown  | 5.2 (14)    |
| CT 14374   | 5.6 (17)    | Fylking    | 5.1 (15)    |
| Fylking    | 5.4 (18)    | Glade      | 5.1 (15)    |
| Nugget     | 5.0 (19)    | Park       | 5.0 (16)    |
| Arista     | 4.8 (20)    | Nugget     | 4.8 (17)    |
| Park       | 4.8 (20)    | Enprima    | 4.6 (18)    |
| CA 24      | 4.0 (21)    | Arista     | 4.4 (19)    |
| Enprima    | 4.0 (21)    | CA 24      | 3.8 (20)    |
|            |             |            |             |

#### Perennial Ryegrass Variety Performance 1976-78, by Turf Scores (0-10; 10 best).

| Derby     | 7.9 | (1)  | Derby     | 5.9 | (1)  |
|-----------|-----|------|-----------|-----|------|
| Pennfine  | 7.7 | (2)  | Pennfine  | 5.8 | (2)  |
| Manhattan | 7.4 | (3)  | Manhattan | 5.6 | (3)  |
| Diplomat  | 7.3 | (4)  | Diplomat  | 5.5 | (4)  |
| Clipper   | 7.2 | (5)  | Clipper   | 5.4 | (5)  |
| Yorktown  | 6.9 | (6)  | S-321     | 5.2 | (6)  |
| Citation  | 6.7 | (7)  | Citation  | 5.0 | (7)  |
| Common    | 6.6 | (8)  | Common    | 5.0 | (7)  |
| Wendy     | 6.6 | (8)  | Ensporta  | 4.9 | (8)  |
| S-321     | 6.5 | (9)  | Yorktown  | 4.9 | (8)  |
| Ensporta  | 6.1 | (10  | Wendy     | 4.8 | (9)  |
| Lamora    | 6.0 | (11) | Lamora    | 4.5 | (10) |
|           |     |      |           |     |      |

Winter performance of fifteen non-ryegrass cultivars overseeded on dormant bermudagrass. 1977-78, College Station, Texas.

| Cultivar<br>and<br>Species            | Seeding<br>Rate<br>(lb./1000 ft.²) | Pert<br>Dec. | forman | nter<br>ce Rat<br>Feb. |     | Average<br>for Winter<br>(11 ratings) |
|---------------------------------------|------------------------------------|--------------|--------|------------------------|-----|---------------------------------------|
| 0.11                                  |                                    |              |        |                        | 0.7 | 0.4.1                                 |
| Sabre rb                              | 12                                 | 6.7          | 6.1    | 6.3                    | 6.7 | 6.4 2                                 |
| Jamestown cf                          | 30                                 | 6.2          | 4.9    | 5.2                    | 5.0 | 5.4                                   |
| Kensington cf                         | 30                                 | 6.1          | 4.9    | 5.3                    | 5.2 | 5.4                                   |
| Penncross cb                          | 3                                  | 5.3          | 5.4    | 5.7                    | 5.3 | 5.4                                   |
| Dawson rf                             | 30                                 | 5.7          | 5.2    | 5.8                    | 4.7 | 5.3                                   |
| Emerald cb                            | 3                                  | 5.5          | 5.0    | 5.2                    | 5.2 | 5.2                                   |
| Seaside cb                            | 3                                  | 5.1          | 4.9    | 4.8                    | 5.3 | 5.0                                   |
| Pennlawn rf                           | 30                                 | 5.8          | 4.0    | 4.2                    | 4.2 | 4.7                                   |
| Syn W cf                              | 30                                 | 5.4          | 4.0    | 4.0                    | 4.0 | 4.5                                   |
| Ensylva rf                            | 30                                 | 5.0          | 3.8    | 3.5                    | 4.7 | 4.2                                   |
| Atlanta cf                            | 30                                 | 5.0          | 3.7    | 3.3                    | 4.2 | 4.1                                   |
| Wintergreen cf                        | 30                                 | 4.9          | 3.6    | 3.5                    | 3.2 | 4.0                                   |
| Highlight cf                          | 30                                 | 4.8          | 3.0    | 2.8                    | 3.2 | 3.6                                   |
| Denmark (common) rb<br>Centurian hard | 12                                 | 2.2          | 2.5    | 2.3                    | 2.2 | 2.3                                   |
| fescue                                | 30                                 | 2.5          | 0.8    | 0.8                    | 1.7 | 1.5                                   |

LEGEND: cb creeping bentgrass cf chewings fescue rb rough bluegrass rf red fescue

'Visual rating of 9-best and 0-poorest; December 1, 1977 to March 31, 1978.

2 Values joined by the same line are not significantly different at the 5% level for Duncan's Multiple Range Test.

| Fineleaf fescues seeded in Fall, 1977, Beltsville, MD.

| Entry                               | % ground | nd cover<br>April 78 | % greenu<br>April 78 | p Leaf spot<br>July 78 |
|-------------------------------------|----------|----------------------|----------------------|------------------------|
| Jade                                | 80       | 95                   | 92                   | 4.7                    |
| Mom 12                              | 87       | 99                   | 83                   | 5.0                    |
| Ilona                               | 83       | 98                   | 83                   | 5.7                    |
| Waldorf                             | 83       | 100                  | 88                   | 5.7                    |
| Famosa                              | 78       | 96                   | 88                   | 5.3                    |
| Syn W                               | 83       | 99                   | 87                   | 5.7                    |
| Koret                               | 82       | 100                  | 83                   | 4.7                    |
| ERG 35                              | 80       | 99                   | 93                   | 5.3                    |
| ERF 283                             | 83       | 97                   | 85                   | 6.7                    |
| Highlight                           | 85       | 100                  | 83                   | 5.7                    |
| Agram                               | 78       | 97                   | 77                   | 6.0                    |
| Grel                                | 77       | 98                   | 52                   | 7.0                    |
| Mennuet                             | 32       | 40                   | 75                   | 6.0                    |
| Barfalla                            | 82       | 96                   | 75                   | 4.3                    |
| Encota Jamestown Polar Sonnet Frt 3 | 85       | 100                  | 72                   | 4.0                    |
|                                     | 78       | 99                   | 70                   | 4.3                    |
|                                     | 87       | 100                  | 50                   | 5.0                    |
|                                     | 87       | 100                  | 47                   | 4.0                    |
|                                     | 82       | 98                   | 48                   | 5.0                    |
| Kensington                          | 87       | 100                  | 45                   | 5.7                    |
| Biljart                             | 83       | 100                  | 55                   | 7.0                    |
| Scaldis                             | 83       | 96                   | 82                   | 5.7                    |
| Silvana                             | 85       | 99                   | 60                   | 7.0                    |
| Waldina                             | 82       | 100                  | 57                   | 6.3                    |
| Tournament FL-1 Engina Enzet Gracia | 80       | 99                   | 55                   | 5.7                    |
|                                     | 87       | 100                  | 50                   | 7.0                    |
|                                     | 72       | 77                   | 57                   | 2.3                    |
|                                     | 82       | 97                   | 50                   | 2.7                    |
|                                     | 83       | 99                   | 53                   | 3.0                    |
| Renova                              | 90       | 100                  | 48                   | 5.7                    |
| Reptan                              | 83       | 99                   | 53                   | 3.3                    |
| Creeping red                        | 87       | 99                   | 53                   | 2.3                    |
| Ensylva                             | 82       | 100                  | 67                   | 5.7                    |
| H4-50                               | 80       | 99                   | 72                   | 4.7                    |
| ISI H.E. 50                         | 87       | 100                  | 63                   | 4.7                    |
| ISI-722 chewings                    | 72       | 94                   | 82                   | 5.7                    |
| ISI-721 chewings                    | 72       | 91                   | 90                   | 6.0                    |
| 76G1-322 (F. ovina)                 | 38       | 43                   | 55                   | 7.0                    |
| Fortress (spreading)                | 83       | 96                   | 50                   | 3.3                    |
| Mom 25                              | 82       | 97                   | 68                   | 3.3                    |
| Mom 33                              | 85       | 99                   | 57                   | 3.7                    |
| K4-21                               | 82       | 98                   | 58                   | 4.7                    |
| K5-29                               | 83       | 99                   | 67                   | 3.7                    |
| Banner (chewings)                   | 77       | 98                   | 65                   | 4.7                    |
| Pennlawn                            | 88       | 100                  | 58                   | 4.3                    |

Winter performance of sixteen perennial ryegrass cultivars overseeded on dormant bermudagrass. 1977-78, College Station, Texas.

| Perennial<br>Ryegrass | Winte | er Pertori | nance Ra | atinas <sup>2</sup> | Average for Winter |
|-----------------------|-------|------------|----------|---------------------|--------------------|
| Cultivar              | Dec.  | Jan.       | Feb.     | Mar.                | (11 ratings)       |
| Loretta               | 7.2   | 6.8        | 7.3      | 7.0                 | 7.1 3              |
| Caravelle             | 6.7   | 6.2        | 6.7      | 6.4                 | 6.5                |
| Regal                 | 6.6   | 6.0        | 6.6      | 6.6                 | 6.4                |
| Pennfine              | 6.5   | 6.1        | 6.5      | 6.6                 | 6.4                |
| Diplomat              | 6.4   | 6.0        | 6.5      | 7.0                 | 6.3                |
| Derby                 | 6.4   | 6.1        | 6.5      | 6.3                 | 6.3                |
| Manhatten             | 6.6   | 5.8        | 6.3      | 6.8                 | 6.3                |
| Pelo                  | 6.6   | 5.8        | 6.2      | 6.7                 | 6.3                |
| NK-200                | 6.8   | 6.0        | 5.8      | 6.0                 | 6.2                |
| Omega                 | 6.4   | 5.8        | 6.2      | 6.5                 | 6.1                |
| Eton                  | 6.1   | 6.1        | 6.1      | 6.1                 | 6.1                |
| Citation              | 6.4   | 5.8        | 6.0      | 5.8                 | 6.1                |
| Yorktown II           | 6.2   | 5.8        | 6.3      | 6.5                 | 6.0                |
| Birdie                | 6.1   | 5.7        | 5.9      | 6.8                 | 5.9                |
| NK-100                | 5.5   | 4.6        | 5.2      | 5.8                 | 5.2                |
| Linn                  | 5.4   | 3.5        | 4.8      | 5.8                 | 5.0                |

\*All perennial ryegrass cultivars were seeded at 40 lb./1000 sq. ft.
\*Visual rating of 9-best and 0-poorest; December 1, 1977 to March 31, 1977.

\*Values joined by the same line are not significantly different at the 5% level for Duncan's Multiple Range Test.

### Designer's forum

By Dr. Michael J. Hurdzan



Michael J. Hurdzan, Ph.D., is a partner in the golf course architectural firm of Kidwell & Hurdzan, Inc., Columbus, Ohio. Dr. Hurdzan received his Doctor of Philosophy in Environmental Plant Physiology and his

Master of Science in Turfgrass Physiology from the University of Vermont. Dr. Hurdzan is a member of the American Society of Golf Course Architects, and is on that association's Board of Governors. He is also a member of the Ohio Turfgrass Foundation, USGA, NGF and the Golf Collectors' Society. Dr. Hurdzan has authored many articles on golf course design and maintenance and is currently writing a book on the history of golf course architecture.

#### Who is that guy in the Ross Plaid Blazer?

Is he a spectre of the famous Golf Architect Donald Ross, a golf futurist, or a proud traditionalist? Yes, he is all three for he is a member of the American Society of Golf Course Architects. Corny lead-in perhaps, but accurate. For few people in the world of golf would recognize the Ross Plaid Blazer as symbolic of a group almost as select as the Order of the Garter. And although many more may know of the existence of A.S.G.C.A., few know Who they are, What they stand for, and How they may shape the future of golf.

Although golf course architecture has been a recognized profession for over 100 years with many distinguished practitioners, no formal organization existed unitl 1947. In that year, 13 charter members met in New York City to elect Robert Bruce Harris as President, Donald Ross as Honorary President, Stanley Thompson as Vice President, and a young man by the name of Robert Trent Jones as Secretary-Treasurer. Then in December of 1948, Donald Ross, the Father of Golf Architecture in America who is credited with designing 600 courses over a 50 year career, hosted a meeting of the new organization at Pinehurst where a consitution, by-laws and code of ethics were adopted. Their initial goals and concerns were to protect and up-grade their profession and to advance concepts and techniques of design consistent with the spirit of the game by collective thought. From that embryonic beginning the organization has grown steadily in stature and numbers, expanding their interest and influence in a most ordered fashion, while not compromising their initial goals. To examine the American Society of Golf Course Architects today would reveal the direction, scope and strength of the organization as well as to introduce its personality.

Currently the society has 58 active members, 10 associate members and 14 fellows. These 80 or so men represent about 75% of the more active practitioners of the art in the world. Like other professional societies, to be accepted as a member of A.S.G.C.A. involves a rather complex system of qualification. Not only must an applicant demonstrate an established ability to design representative golf courses, but also he is considered for his ethics and methods of professional practice. To be selected as an associate member is recognition by his peers of his personal and professional integrity and abilities that have been scrutinized by his member sponsors. Once he is made an associate member he is expected to support the society and its' programs by attendance to the meetings and to obtain a set number of credits from the professional development seminars over a 3 year period before being made a full member.

Although the backgrounds and skills of the members may vary as does their professional philosophies and practices, the common denominator is their interest in advancing the profession. Within the society there are about 20 committees that concern themselves with such subjects as Environmental Impact, Legal Considerations, Golf Terminology, History, Hall of Fame, and Professional Development. In fact, in recent years the Professional Development committee has been responsible for providing 6-8 seminars, given by experts within the society, on subjects directly impacting the profession. One

visitor to the program commented that to simply assemble the speakers with the stature and knowledge he witnessed, would have cost many thousands of dollars. The intent of the original founders of advancement by collective thought is alive and well.

Not all of the talents, efforts, and dollars of the society are directed to in-house use. Within the past few years the society has produced a white paper on golf course and the environment and has initiated a cooperative project with the U.S.G.A., G.C.S.A.A., and the University of Florida on sewage effluent for irrigation. Results from this project could have wide ranging effects all over the world and even outside the realm of golf. The A.S.G.C.A. executive committee actively participates with the Allied Association of Golf composed of representatives from the Club Manager Association, United States Golf Association, Professional Golfers Association, Golf Course Superintendents Association of America and National Golf Foundation. This group represents the bulk of the golf industry and they try to forge policies and directions to protect the best interests of the

If this were not enough to do for so few people, they also nominate, select, and present the Donald Ross Award to some member of the golf industry who has made a significant contribution to golf in general and golf course architecture specifically.

This spring the Society will travel to Scotland to study and play the hallowed courses there and to attend educational sessions given by Great Britians best Golf Architects and Superintendents. Their goal is to learn about the British philosophies and concepts of design and maintenance. The members of the American Society of Golf Course Architects are proud of their history and have chosen to honor one of the great Golf Architects and founding members, Donald Ross, by using his family plaid for their blazers. So the next time you are asked "who is that man in the Ross Plaid Blazer?"; you can reply 'a spectre of Donald Ross, a golf futurist, and a proud traditionalist'. Corny perhaps, but accurate.

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