fescue; 30% Bardot browntop.
Light soil: 80% Barfalla chewings fescue; 20% Bardot browntop.

TEES
Heavy soil: 30% Baron smooth stalked meadow grass; 25% Bardot browntop; 45% Barfalla chewings fescue.
Light soil: 30% Baron smooth stalked meadow grass; 20% Bardot browntop; 50% Barfalla chewings fescue.

FAIRWAYS
Heavy soil: 30% Baron smooth stalked meadow grass; 25% Bargena creeping red fescue; 30% Barfalla chewings fescue; 10% Bardot browntop.
Light soil: 40% Baron smooth stalked meadow grass; 40% Bargena creeping red fescue; 15% Barfalla chewings fescue; 5% Bardot browntop.

W. W. Johnson & Son Ltd., Boston, Linces. PE21 8AD.

GREENS
Blend J1—80% chewings fescue; 10% Holfior bentgrass; 10% Highland bentgrass.
Mowing: 5mm. (¼ in.). The sward is quite capable of persisting at this mowing height but should be supported by judicious management.
Blend J2—40% Waldorf chewings fescue; 40% Dawson creeping red fescue; 10% Holfior bentgrass; 10% Highland bentgrass.
Mowing: 8mm. (½ in.). At this height a really dense turf will be obtained with a somewhat reduced management requirement. If desirable the mowing may be at 5mm. but the need for more exacting management will be increased.

TEES
Blend J3—30% Waldorf chewings fescue; 30% Dawson creeping red fescue; 5% Holfior bentgrass; 5% Highland bentgrass; 30% Prato smooth stalked meadow grass.
Mowing: 20mm. (¾ in.). This is the best height at which to mow for normal purposes but where 15mm. (½ in.) is preferred this can be done provided the sward is rested and mown at levels of not less than 1¼ in. for 3–4 months.

FAIRWAYS
Blend J4—30% Waldorf chewings fescue; 20% Dawson creeping red fescue; 20% Ruby creeping red fescue; 5% Holfior bentgrass; 5% Highland bentgrass; 20% King timothy.
Mowing: 20mm. (¾ in.). A reduction to 15mm. in mowing height is possible but is normally undesirable.

Maple Leaf Mills Ltd., Seed Division, Oakwood, Ontario, Canada.

Fylking bluegrass is an ingredient of many seed mixtures, and is a large-seeded variety. There are approximately 1,130,000 seeds per pound, comparing well with other bluegrasses which can number up to 2,100,000 per pound.

Fylking thrives mowed to half an inch and is resistant to disease. It endures light shade and reduces the frequency of mowing. For the purpose of sod growing, the turf is ready for lifting 80 to 90 days after seed planting. Once established, Fylking should require three or four seedings annually, each to provide about 1 lb. of nitrogen per 1,000 sq. ft.

Individual plants resemble fine fescue, suggesting that some chewings or penn-lawn in a Fylking seed blend should prove compatible as a nurse for new plantings. In fact, if mowed less than a half inch, the tillers grow near the ground, much like a bentgrass. The name originates from the ancient Nordic language, and means a dense crowd or battle formation.

The Miln Marster Group Ltd., Chester and Kings Lynn.

GREENS
Mixture No. A1—30% browntop; 70% chewings fescue. Sow at the rate of 2oz. per square yard.

TEES
Mixture No. B2—10% browntop; 45% chewings fescue; 35% creeping red fescue; 10% rough stalked meadow grass. Sow at the rate of 2oz. per square yard.

[Turn to Page 13]
DEPARTMENT OF RECREATION

HEAD GREENKEEPER

£2325—£2475 or £2610 + £167 p.a. Threshold Payment.

Required for Brandon Wood Golf Course under construction on the outskirts of the City. This is a new 18 hole Municipal Course of modern design with modern maintenance equipment. The person appointed must be a qualified and experienced golf greenkeeper and will be expected to take up his duties as soon as possible after 1st January 1975.

Housing accommodation available on rental adjacent to the Course. Consideration will be given to the payment of removal expenses.

Application forms and further particulars from:

Director of Recreation,
Department of Recreation,
Council Offices,
Earl Street,
Coventry, CV1 5RT.

BERMUDA GOVERNMENT

GOLF COURSE SUPERINTENDENT — APT 3/4

$8,347 — $11,350 per annum

The successful applicant for this post, at our Port Royal Golf Course, will have a good general knowledge of horticulture with at least five years experience in golf course management. He will be familiar with the appropriate golf course turf machinery and will have demonstrated the ability to control and supervise labour.

Salary will commence at BD$8,347 and rise by annual increments of BD$372 to a maximum of BD$11,350. (1BD$ = 1US$; there is no income tax in Bermuda).

The appointment will be for a contract period of three years; passages, baggage and settlement allowances will be provided.

Applications giving full details of qualifications, previous experience, marital status and the age and number of dependents and the names and addresses of three referees should be sent by AIR MAIL to the Secretary, Public Service Commission, Hamilton, Bermuda, to arrive not later than 28th December 1974.
[Grass Review from Page 11]

FAIRWAYS
Mixture C3—30% Aberystwyth S.23 perennial ryegrass; 10% browntop; 20% chewings fescue; 30% creeping red fescue; 5% crested dogstail; 5% rough stalked meadow grass. Sow at the rate of 1 oz. per square yard or 2 cwt. per acre.

ROUGH
Mixture D4—10% Aberystwyth S.23 perennial ryegrass; 70% short seeded perennial ryegrass; 10% chewings fescue; 10% creeping red fescue. Sow at the rate of ¼ oz. per square yard or 1 cwt. per acre.

Mommersteeg Seed Co., Station Road, Finedon, Wellingborough, Northants. NN9 5NT.

GREENS
Mixture MM 11—80% Koket chewings fescue (OECD Certified); 10% Tracentra browntop (OECD Certified); 10% Highland browntop (OECD Certified); dressed with ‘SAIgan’. Sowing rate: 1 oz. per square yard; mowing height: ½ in.

TEES
Mixture MM 14—45% Koket chewings fescue (OECD Certified); 25% Fylking smooth stalked meadow grass (OECD Certified); 20% Monopoly smooth stalked meadow grass (OECD Certified); 10% Highland browntop (OECD Certified); dressed with ‘SAIgan’. This mixture is rather slow in its initial establishment, and should not be used for very early or late sowings. As an alternative the universal mixture (MM 22) may be sown. Sowing rate for repair work: ¼ oz. per square yard; mowing height: ½ in.

FAIRWAYS
Adaptability is an important quality of any golf course fairway; soil conditions, shade intensity and the ground water table can vary quite markedly in different areas of the course. Heavy divot scarring of the turf, particularly on par four holes from approach and pitch shots, can be concentrated in specific areas, so the turf must be able to tolerate this and quickly recover from any damage. Therefore a high proportion of rhizomatous grasses must be included in the seed mixture. Sowing rate: ¼ oz. per square yard; mowing height: ½ in.

ROUGH
Mixture MM13 — 50% Novorubra creeping red fescue (OECD Certified); 45% Monopoly smooth stalked meadow grass (OECD Certified); 5% Highland browntop (OECD Certified); dressed with ‘SAIgan’.

Nickersons of Rothwell, Field House, Grimsby, Lincs. DN34 4SX.

GREENS
Mixture Gold Seal—50% Highlight chewings fescue (OECD Certified); 30% Erika chewings fescue (OECD Certified); 20% Boral browntop bent (OECD Certified). Sowing rate: 1¼ oz. per square yard.

TEES
Mixture Silver Seal — 35% Reptans creeping red fescue (OECD Certified); 10% Dawson creeping red fescue (OECD Certified); 15% Sydsport smooth stalked meadow grass (OECD Certified); 10% Primo smooth stalked meadow grass (OECD Certified); 10% Boral browntop bent (OECD Certified). Sowing rate: 1½ oz. per square yard.

FAIRWAYS
Mixture Green Seal—20% Melle perennial ryegrass (OECD Certified); 25% Sydsport smooth stalked meadow grass (OECD Certified); 25% Primo smooth stalked meadow grass (OECD Certified); 10% Heidemeij timothy (OECD Certified); 20% Repteans creeping red fescue (OECD certified).

Plantagenet Seeds Ltd., 9a Market Place, Pickering, Yorks. YO18 7AA.

A new nine-hole golf course at Ganthroade, near Hull, has been built with Tana grass, the first in the world to be completed by this method. The greens and tees are all now ready for play, and the comments on the course, at this early stage, undoubtedly reflect the correct choice of varieties, as well as the contribution from the Tana grass system.

[Turn to Page 15]
Keep turf at its best - all season

with a single feed from new Gold-N

Gold-N is completely different from conventional turf fertilizers. Following an initial boost of nitrogen, it supplies this vital nutrient slowly and continuously over a period of 3 to 6 months. All from a single application!

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This steady supply maintains turf at its best. Keeps it thick and green. There isn't the intermittent "too lush, too little" effect of more soluble fertilizers. And because Gold-N resists leaching in wet weather, grass vigour is maintained even on free-draining soils, golf courses, public open spaces and reclaimed derelict sites.

It's Consistent
Gold-N minimises scorching, tolerates variations in temperature and moisture. And because it's made to rigid specifications, every bag is as good as the next. It's easy to handle and spread - by hand or machine. And it's hygienic so there's no danger of the diseases associated with organics like hoof and horn. What's more the nitrogen content is virtually all usable.

Superior Performance
Gold-N saves money by eliminating leaching and other wastage. It works economically in situations where perhaps five or six dressings of the usual fertilizer would be required - keeping time and spreading costs to a minimum and increasing playing time. It will help to transform sparse growth areas to lush swards in one or two seasons and after only one application per season.

For full details of Gold-N, contact:
England & Wales — Chipman Chemical Co., Horsham, Sussex EH6 7EN.
Tel: Horsham 60341

Scotland — SAI Horticulture Ltd., Hortus House, 3 John's Place, Edinburgh. Tel: 031 554 5451/6

N. Ireland — Richardson's (Ulster) Ltd., 1 Short Strand, Belfast BT3 4BS.
Tel: Belfast 57424/5/6

Eire — ICI (Ireland) Ltd., 5/9 South Frederick Street, Dublin 2.
Tel: Dublin 771831

Gold-N keeps grass lush and green
The varieties chosen were Highlight and Koket chewings fescue, and tracenta enate and Bardot agrostis tenuis. The proportion was 80% chewings fescue and 20% agrostis tenuis.

At Bridlington municipal golf course 13 greens have been completed this year, again using Highlight chewings fescue and enate and Bardot agrostis tenuis, with 20% S59 creeping red fescue included to strengthen the grass in view of the close proximity to the sea and the somewhat impoverished nature of the soil.

It is recommended with Tana grass that care be taken to keep it moist by irrigating for the first 7-10 days, preferably morning and evening. The first cut is taken 2-3 weeks after laying; thereafter repeat cutting to one inch height is maintained for the following two months, after which the cutting height is gradually brought down to \( \frac{1}{4} \) in., or whatever height is desired for play. The height of the mower is raised to \( \frac{3}{4} \) in. during the winter if play has not already commenced.

Each of the greens receives a basal fertiliser dressing before Tana is laid, and a folia feed at the time of, or soon after, laying. Thereafter repeated light doses of suitable top dressing fertiliser such as Growmore is applied. Each green also receives a top dressing of sharp sand/peat/sterile soil, though in lighter quantities than would normally be applied after sowing or laying natural turf.

Also advocated is the use of a preventative fungicide, particularly when the cutting height is reduced from one inch, and of course, during those periods of the year when fungus diseases are most active.

It is, of course, possible to include all varieties of seed in Tana production, and a number of trials are being conducted including various species, such as agrostis stolinifera and poa pratensis. On the Continent poa pratensis is a favourite, and a number of varieties are being tried, including Fylking, which has so far stood out as an excellent variety.

Suttons Seeds Ltd., Advisory Service, Reading, Berks.

GREENS

Mixture No. 25—A blend of the agrostis and festuca species, which consists of seeds of the highest purity and germinating ability. A sowing rate of 1 to 2 oz. per square yard is advised. This mixture consists of Certified Highland bent, Certified Highlight chewings fescue, Certified Oregon chewings fescue, and creeping red fescue.

Mixture 26—A mixture within a single species to produce the needle-like sward occurring on many of the links courses. A sowing rate of \( 1\frac{1}{2} \) to 2 oz. per square yard is advised.

The mixture consists of:— Certified Highlight chewings fescue, Certified Oregon chewings fescue, Certified Aberystwyth S59 creeping red fescue, Certified OECD Dawson creeping red fescue.

TEES

Mixture 23—A hard-wearing blend of grasses which may be sown equally well in spring, summer or autumn for divot repair or general over-sowing on existing tees, or for producing a rapid cover on new tees.

This blend consists of Certified Highland bent, Certified Oregon chewings...
fescue, Canadian creeping red fescue, Finnish timothy, American smooth stalked meadow grass, Certified Kentish perennial ryegrass, Certified Ruanui perennial ryegrass.

FAIRWAYS
Mixture 24A—Some fairways are almost pure agrostis and festuca species; others have poas and perhaps Cynosurus cristatus, and on the heavier land probably a percentage of lolium perenne.

We offer two standard prescriptions and advise seeding rates of between $\frac{2}{5}$ and 5 cwt. per acre.

The non-Ryegrass prescription consists of Certified Highland bent, N.Z. crested dogstail, Certified Cascade chewings fescue, Certified Oregon chewings fescue, Canadian creeping red fescue.

Mixture 24B — Including perennial ryegrass, made up of Certified Highland bent, Canadian creeping red fescue, Finnish and Canadian timothy, Certified N.Z. Ruanui perennial ryegrass.

Twyford Seeds Ltd., Adderbury, Banbury, OX17 3HL.

GREENS
Penncross—agrostis palustris; sowing rate $\frac{1}{4}$ oz. per sq. yd.; or A1 green mixture—80% OECD Certified Barfalla chewings fescue; 20% Certified Blue Tag Oregon browntop; sowing rate 1–1½ oz.

TEES
A2 tee mixture—30% OECD Certified Barfalla chewings fescue; 35% OECD Certified Bargena creeping red fescue; 25% OECD Certified Baron smooth stalked meadow grass; 10% Certified Blue Tag Oregon browntop; sowing rate 1–1½ oz. per sq. yd.

FAIRWAYS
Fairway mixture—40% OECD Cer-
tified Barfalla chewings fescue; 35% OECD Certified Bargena creeping red fescue; 15% OECD certified Baron smooth stalked meadow grass; 10% Certified Blue Tag Oregon browntop; sowing rate 1½–2 cwt. per acre.

**Seed Measurement Table**

<table>
<thead>
<tr>
<th>Seed &amp; Grasses</th>
<th>Yards</th>
<th>Square yards</th>
<th>1 oz. per sq. yd.</th>
<th>2 oz. per sq. yd.</th>
<th>4 oz. per sq. yd.</th>
<th>1 lb. per sq. yd.</th>
<th>18 cwt. per 1,000 sq. yd.</th>
<th>25 cwt. per 1,000 sq. yd.</th>
<th>50 cwt. per 1,000 sq. yd.</th>
<th>100 cwt. per 1,000 sq. yd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eighteen (average) golf greens</td>
<td>625 each</td>
<td>6½</td>
<td>12½</td>
<td>25</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quarter acre</td>
<td>1,210</td>
<td>6½</td>
<td>12½</td>
<td>25</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Half acre</td>
<td>2,420</td>
<td>1½</td>
<td>2½</td>
<td>5½</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One acre</td>
<td>4,840</td>
<td>1½</td>
<td>2½</td>
<td>5½</td>
<td>11</td>
<td>44</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Some Grasses grouped according to habitat (which might indicate their uses in turf)**

**CHALK/LIMESTONE FORMATIONS**
- Festuca rubra
- Festuca ovina
- Crested Dogstail
- Wavy hairgrass
- Ryegrass
- Timothy
- Agrostis—stolonifera/tenuis

**SANDY SOILS**
- Poa pratensis
- Agrostis tenuis
- Agrostis canina
- Agrostis canina sub spp. Montana
- Festuca rubra
- Festuca ovina

**SANDY SEA SHORES/MUD FLATS**
- Poa maritima
- Poa bulbosa
- Agrostis stolonifera var. compacta
- Festuca rubra
- Festuca ovina

**STIFF MOIST CLAYS/LOAMY SOILS**
- Poa pratensis
- Poa bulbosa
- Agrostis stolonifera var. arenaria
- Festuca rubra
- Lolium perenne

---

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December 17
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RE-READING once again, Jacklin’s absorbing book on his life, it was interesting to note his comparison of American courses with those to be found in these islands.

He makes the point that bunkers should be fair at all times. He develops that argument by describing some of ours as steep-sided horrors, long outdated, and from which there is virtually no escape in one stroke other than playing out sideways, or backwards.

Apart from bringing home to those of a much earlier golfing generation the change in outlook of the modern competitor (or one of them), this opens up some questions.

As Professor Joad, on the Brains Trust programme, used to say with the utmost regularity: “It depends on what you mean by...” In this instance, fairness.

In modern thinking an undulating fairway produces unfair bounces. Is it too naïve to ask if the ball kicks the wrong way every time? As for playing a ball lying on an up, or down slope, most players of amateur county class would expect to cope adequately with these—from experience alone.

On a number of our “outdated” courses, recoveries from these antique coffins have been seen on television. The impression is that most of them end up leaving the player with a holeable putt. That is, from greenside bunkers, and with a sand-wedge. The impossibility of playing a long second from them is granted. To the surprise of many, one of the American women professionals, in the Colgate tournament at Sunningdale, was seen to attempt a wood from sand. The ball struck the bank. Her caddie’s thoughts would be interesting.

Harry Vardon, his contemporaries and later generations had to cope with them. Their sole instrument for recovery was the niblick, a club without a flange to slide it through the sand. Despite this, John Henry Taylor went round Royal St. George’s, Sandwich, in 69, knowing he had to do so. To be trite, it is the same for everyone. The deep bunkers are there—punishing—and it is an old axiom that it is the man who makes the least errors wins.

That was before the term “Scrambling” had been invented. Which may be defined as keeping the score within reasonable limits, when not striking the ball as well as normally. Into that can be read the wish to reduce punishment, without decrying the skill shown in getting out of trouble.

Another question begs. Trees are now in fashion on new courses. There are many on the old inland clubs. Does a ball lying against a trunk, or in the roots, offer a more amenable chance for recovery than from those sanded depressions? Furthermore, with the introduction of water “traps”, they are not bunkers, mostly in America to the relief of one ancient, are we now to expect a water-wedge? It is difficult to see what design this would take, within the provisions of Rule 2. “Form and Make of Clubs”. A noted coaching professional was asked the correct stroke from water, and is reported to have said he did not know.

Inevitably it will be argued that an amateur cannot understand what it is like playing for your livelihood. It is only necessary to have watched some Open Championships, and seen the haggard faces of some of those in contention to have a fair inkling.

A player anxious to win the Amateur of any of the major golf countries, is under heavy strain. He is not called to play 72 holes medal, but by the time he has reached the final he could have played that number. Whereas in this formula a disastrous hole does not wreck
his chance, the course cannot attack him by holing long putts or chip shots as a human opponent may.

Perhaps the idea of "fairness", whatever that may mean in golf, is the key. That master of writing about golf, the late Bernard Darwin, when writing on that subject posed the question: "Do we wish to descend to the bloomless heights of Chess?" I quote from memory.

Reflecting on what has been written—the opinions of an oldster—one wonders whether the passion for startling scores, some of it due to promoters with an eye on the gate-money, and a proportion to the publicity they receive is responsible. The public has been brainwashed into expecting returns under 70. An obvious way to get these results is to make conditions easier.

But, after due acknowledgement has been made to improved clubs and balls, improved technique (?)—do they hit them any straighter than Vardon or Taylor?—and making allowances for the different conditions, are the 69s any better golf than the 74s of those two?

Professionals' tournaments today are a form of entertainment, and the cast (the competitors) know they have to produce brilliant figures. There are two sides to that. To win demands low scoring. To be in a position to demand appearance money, the performer must produce the goods. It is natural, therefore, that he does not regard heavy punishment for a wayward stroke amicably.

That is but a soft impeachment. It has to be accepted that the golf of today, and yesteryear are two different games. Finally, not without pleasure and pride, it can be claimed that our long outdated courses, with their steep-sided horrors of bunkers, have yet to allow an inferior player to win the Open.

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