

Progress in Perennial Ryegrass Breeding

by Dr John Hendrix, *Plant Breeder, NVH Mommersteeg, Vlijmen, Holland*

WITH PERENNIAL RYEGRASS having well over half the British market for sports and amenity grass seeds, one would have expected plant breeders to devote much effort to producing improved varieties of this species. But, until recently, this was not the case.

The reasons are twofold; firstly, certain pasture varieties such as Lamora and S23 which were originally bred for agricultural use have proved themselves to be valuable turfgrass varieties; secondly, sports and amenity turf mixtures (on which there are no statutory controls) have provided an overflow outlet for commercial ryegrass strains and agricultural hay-type varieties in years when these have been overproduced. Consequently – and regrettably – it is possible to see in many turf seed mixtures today a high percentage of ryegrass varieties which have been selected by plant breeders to produce bulky erect-growing foliage intended for farm, hay and silage crops, for example Verna, Ruanui, S24 and S321. These varieties are ideal for the purpose for which they were intended but have no place in sports turf mixtures.

As I have mentioned, the agricultural pasture ryegrass varieties have several characteristics useful in sports turf, notably a high tillering capacity, dense prostrate growth and good resistance to wear. However, they also show some that are less desirable, as their breeders were not concerned with colour, texture, ease of mowing or turf growth-pattern. These are irrelevant features of a grazing pasture where heavy yields and persistency are the main considerations; therefore no selection was done to incorporate the beneficial features of these characteristics in those varieties.

In formulating our breeding programme we had to ask ourselves just what were the desirable features for perennial ryegrass? Many of these individual characteristics are fairly obvious, such as good colour, fineness of leaf, few seed heads, easily-mown turf and disease resistance. However, on looking more deeply into the practical use of ryegrass in sports turf swards it became clear that there were really two different roles that ryegrass has to perform: the first on Winter games areas like football and hockey pitches, the second on Summer turf areas such as tennis courts. Some turf is in both categories, for example that of general playing fields, but it should be remembered that these dual or multi-purpose areas sustain greatest damage during the Winter months when conditions are at their worst.

We therefore decided that in the first instance a new variety would have to cope with the problems of Winter games areas, notably, heavy wear under cold, wet conditions. To fulfil this requirement a grass was required not only to withstand heavy wear but also to have the ability to recover from turf damage during the Autumn-to-Spring period. To achieve this, the variety had to tiller and grow late into the Autumn and as early in the Spring as possible, simply because a plant that is dormant during this period has no chance of regenerating to recover from turf damage. In addition to this all-important feature, two other characteristics for Winter games areas were considered desirable: firstly, a good colour over the Winter period (unfortunately most agricultural varieties tend to show a degree of leaf brownness then, so this had to be selected out). Secondly, an easily-mown sward was preferable for efficient gang mowing and to produce a tidy finish to the turf – agricultural varieties often tend to show ragged or torn leaf ends after mowing.

Having settled on our aims for the new variety, we started the breeding programme which eventually came to fruition in the marketing of our variety 'Stadion'. Those of you who have seen it growing will know it has the characteristics which we set out to produce. This is by no means the end of the story. I stated earlier that a ryegrass variety for Summer

turf was also required; these different conditions need other characteristics such as drought tolerance and resistance to red thread disease. We already have a breeding programme under way to produce a variety to fulfil these requirements. Furthermore, we are continually collecting, selecting and testing new plant material as a means to produce new varieties which show improvements on those in use today. Thus for many years to come we shall continue to make playing conditions better and turf management easier.

The British Golf Greenkeeper's Association

**MINUTES OF THE
EXTRAORDINARY GENERAL MEETING
HELD AT THE ENGLISH SPEAKING UNION**

19th May, 1973

TWELVE MEMBERS were present including the Chairman who took the chair for the meeting.

The Agenda for this meeting was the proposal for increases in subscription rates which had been made at the Executive Meeting held at Birmingham in March, 1973, and which necessitated a change of rules. Views of this proposition were discussed at some length by the representative members of various sections, some of which were in full agreement with the proposals, and others were of the view that they should be modified to some extent, particularly with regard to the proposed increases for Honorary Members, as it was felt this could possibly have a detrimental effect on this form of membership.

Another point which was discussed at some length was the proposed increase in Entrance Fee from 15p. to 50% of the subscription. Here, again, it was thought possible that this large increase could possibly affect membership of the Association and Mr Heeles proposed an amendment to the original proposition that the increased rates, as suggested for Classes A. B. C and D, should be accepted but that there should be no charge in Class E membership. Also that the Entrance Fee should be increased to 50p and not 50% of the subscription. A vote was taken on this amendment which was passed by a majority of seven for and three against, with one abstention.

The Chairman then agreed that the rates should be adjusted according to the amendment and the Hon. Secretary was asked to publish these figures to operate from 1st May, 1973.

There being nothing further to discuss the meeting was closed with a vote of thanks to the Chairman.

NOTE

The wage scale recommendations printed in the May issue of the Journal should read *Minimum* per annum.

Editor