

Testing the seeds

More details of work at the Sports Turf Research Institute, Bingley

Cultivar and Seeds Mixture Testing

Work on these subjects has gone on almost continuously at various levels of intensity right from the beginning and at the present time the greater part of our research effort is directed to this end.

In recent years grass breeders have produced a great many new cultivars (varieties) of the common turf species and it seems clear that independent testing is important (though not covered by the State as in Agriculture). Field tests are carried out to compare performance under different treatments (e.g. height of cut, fertiliser, artificial wear) and results are reported each year in our Journal. It is hoped that before very long we will be able to produce for sale a regular handbook summary of our evaluations.

New seed mixture trials are necessary because of the availability of improved varieties and to take account of the artificial soil conditions

which are being increasingly used. We would like to do more than we are able at present.

Needs for research at the present time

Last year a new committee of representatives of the main turfgrass breeders was formed, the idea being for us to consult with them as to whether trials we are doing on cultivars are of a satisfactory nature. Happily, it would appear that we are not far off the mark but this committee thinks that much more work is required and indeed that it should be carried out at several centres to take account of different climatic and other conditions. It is interesting to note that the idea of sub-centres was referred to in our first Journal in 1929 and was recommended by the Scientific Advisory Committee in 1930!

The committee of Breeders representatives suggested the formation of

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Sheffield Section

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JANUARY was a vacant month in our winter lecture programme, but on February 6, Mr. M. Scheile of Agrihort Ltd. gave us a very interesting talk on the subject of Modern Grasses for Modern Golf Courses.

The meeting was very well attended. About 48 members were kept very interested for the duration of Mr. Scheile's talk. Afterwards our Presi-

dent, Mr. K. Arnold, in thanking Mr. Scheile, said he thought we had been given a look into the future as regards grasses that would be used on golf courses.

Congratulations to the Captain and Committee of Lindrick Golf Club, their course having been chosen as venue for the P.G.A. Match Play Championship.

The event is in September, and I am sure Lindrick will once again be in its usual fine condition, thanks to Harry Herrington and his staff.

[Bingley Research continued]

a wider based committee to help us, i.e. a committee representing a broad field of users. Our practical advisory committees of earlier years had petered out for various reasons but the Board had felt that the matter should be kept open and so we went ahead and formed a Turfgrass Advisory Committee with representatives of greenkeepers, groundsmen, parks superintendents, etc. At the very first meeting of this Turfgrass Advisory Committee last year the members, after examining what we were doing, expressed the opinion very forcibly that, especially in view of the very large amount of money spent annually on construction and maintenance of turf, the amount of research urgently needed is vastly beyond anything the Institute could contemplate with the scale of finances available. With the help of the Institute's staff a schedule was got out indicating work that ought to be done as soon as possible and the estimated cost of the items in it.

It was felt that of outstanding importance at the present time is the need to carry out wider trial work on new grass cultivars and on grass seeds mixtures for various kinds of amenity turf (from lawns to parks, golf courses and sports grounds) and that it is necessary to have trials at several sub-centres—as many as eight being considered necessary. The cost of a really comprehensive system comparable to that of Agriculture seems to be at least £75,000 per annum for the cultivar assessment and £25,000 per annum for mixture trials aimed, not only at golf courses and sports grounds, but also at areas such as road verges where minimum maintenance is required.

The list which was drawn up and agreed by the Turfgrass Advisory Committee of some other major sub-

jects on which information is urgently needed is as follows:—

1. Physiology and morphology of wear resistance in grasses.
2. Deterioration of playing surface in relation to plant damage and recovery, and type of plant structure most important for maintaining playing surface, e.g. roots, rhizomes, etc.
3. Establishment and behaviour of turfgrass species and cultivars in different soil types, and with different nutrient status. (This would help to fill the gaps in the extension trial network.)
4. Techniques for producing clean seed beds and particularly establishment of fine turf free of *Poa annua*.
5. Requirements of turfgrass seedlings at establishment in relation to seed rate, and competition at initial stages between the components in mixtures.
6. Properties of soils affecting their use for sport, especially the production of free-draining soil profiles capable of carrying hard-wearing turf.
7. Development of reproducible assessment methods for playing surfaces, to check value for money in construction and repair of pitches etc.
8. Inter-relationship between turfgrass disease and management, especially nitrogen regime.
9. Surveys of turfgrass seed use in the U.K. (possibly repeated once or twice after intervals of a few years) and survey of numbers of turfgrass users of different categories, and numbers of facilities of different types (e.g. how many football pitches).
10. Minimum maintenance methods of turfgrass management.
11. Reaction of turfgrasses to growth regulators, appropriate methods

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of using growth regulators in different turf situations, and selection by trials of the species or cultivars of grass particularly suitable for such techniques.

12. Shade tolerance.
13. Use of grass for indoor surfaces, and response to artificial light and other indoor conditions.
14. Effect of soil heating and protective covers on turf in winter and effect of protective covers in summer.
15. Methods and mixtures for rapid re-seeding on sports fields and other areas of heavy wear.
16. Development and control of "thatch" especially in fine turf.
17. Reassessment of optimum time of fertiliser application and kind of fertiliser.
18. Light and temperature requirements for turfgrass seed germination in relation to depth of seeding and season.

The subject of annual meadow-grass control is not listed as a separate item, although perhaps it should be; it is supposed to be covered in various other items such as the fourth.

The work required is envisaged as taking 5-10 years and costing a total of between £400,000 and £500,000. It need not all be at Bingley, of course. For comparison purposes I can tell you that the expenditure on research at Bingley at present is running at £18,000 per annum, much of this on cultivar trials.

Limits

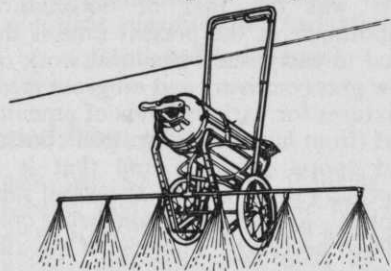
Clearly, from all that has gone before the main limit on the research that can be done is money. More staff are needed urgently but it is probable that buildings, land, etc. will come into the picture in due course.

Although research can lead to the production of high quality turf which will perform satisfactorily under heavy use even under adverse weather conditions, we have to face the fact that as far as can be foreseen there will always be such a thing as over-use of turf. It will not stand an unlimited amount of wear.

No matter how much information becomes available it is of little value unless known to those responsible for construction and management of turf. At the present time educational facilities for greenkeepers and groundsmen are less than adequate—even the present rather low state of the art is not as widely known as it should be. Obviously as more knowledge becomes available the problem of passing it on becomes the more marked.

Next issue :
Bingley looks to the future.

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