

On the other hand, seaweed is probably the richest source of these minerals, in non-toxic quantities. Not only does seaweed provide these minerals for the plant, but it also unlocks those already present, and holds them in solution for use by the plant. It has been shown that the amount of manganese in the leaves of tomato plants that have been treated with seaweed is far greater than the amount of manganese in the seaweed applied. This is possible as the seaweed is an excellent cultural material for the soil bacteria and fungi, and triggers off a reaction to lower the pH of the soil and causes the soil to release its own trace elements. Simple sugars are present in seaweed—such as mannitol which is known to chelate metals and this possibly contributes to the overall effect.

Hot and Cold

Liquid seaweed is probably the most convenient way of applying seaweed to grass. There are many ways of making an extract—hot and cold water methods are easy and cheap, but these only extract part of the nutrients. An almost complete extract can be made by hydrolysis under pressure. This method makes use of all the nutrients and growth promoting hormones. Maxicrop is an example of this method and is compatible with any other solution so that it can be applied at the same time as a weed killer.

Dr. Bentley of Aberdeen has shown that when seaweeds are treated by this method of hydrolysis they yield growth promoting hormones that are effective at 1:100,000. One of these compounds, not yet identified chemically, stimulates

and maintains the growth both of root and stem. This hormone is of great importance both in producing and maintaining a good hard-wearing turf—for only if there is a strong and vigorous root system can the grass make a quick recovery after heavy use.

It is well known that when there is plenty of humus in the soil the bacteria and fungi produce natural antibiotics, these enter the plant and make it disease resistant.

Cold Cure

Experimental workers in New Jersey found that seaweed also produces antibiotic substances when they tried to grow influenza and mump virus on agar jelly made from seaweed. Their experiments failed because the antibiotics in the jelly inhibited the growth of the virus. Growth promoting hormones themselves have also been found to give increased resistance to disease. All these factors in seaweed combine in producing sturdy, healthy plant growth, well able to resist both disease and pests.

Experiments at the Sports Turf Research Institute suggest that the use of seaweed might increase the drought resistance of golf greens, and it is now being used at Muirfield Golf Course, Edinburgh.

Many other famous swards have been dressed with seaweed—from the Tottenham Hotspurs ground to the British Embassy lawns in Washington, D.C.

* Maxicrop Ltd.

With grateful acknowledgments to Parks & Sportsgrounds.

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BEATING THE WEATHER—continued.

can be removed physically from the pitch though this is usually very detrimental to the turf. The alternative of removing by chemicals has always proved damaging to the pitch so that

heat is still a useful way of getting the sort of pitch that is required.

(N.B.—Snow is itself a very good protection against frost and in frosty weather should not be too hastily removed in the absence of other protection against frost.)

REFUSE AND SLUDGE—continued.

agriculturists, etc. who might be interested in bulk purchase of up to 2,500 tons, sufficient compost being retained for local residents. It has not yet been possible to reach an agreement on this basis.

In September, 1962, the Borough Engineer requested authority to expand sales direct to the public—up to a 60 mile radius from Leatherhead, and to obtain the necessary publicity.

In the financial year to 31st March last, 849 tons were sold. During the period April to August 401 tons were sold and in September and October approximately 450 tons have been sold—a total of approximately 850 tons during the first seven months of this year. Two Leatherhead golf clubs use the compost.

In addition approximately 1,500 trial bags, holding approximately ½ cwt., have been sold in the last 2/3 months.

A chemical analysis of the compost is as follows:—

	%
Moisture	32.7
Volatile Matter (other than moisture)	18.9
Non-Volatile Matter (mineral matter)	48.4

Total nitrogen in dry solids	0.82
Phosphoric acid (P ₂ O ₅) in dry solids	0.64
Potash (K ₂ O) in dry solids	0.21
Calcium (CaO) in dry solids	2.83
pH of aqueous extract ...	7.6

It is too early to give a summary of income in relation to expenditure although the following prices are quoted by the Leatherhead Council.

	PER TON		
<i>Radius</i>	10 tons	5 tons	1 ton
5 miles	20/0	25/0	35/0
25 miles	31/0	36/0	
50 miles	39/0	44/0	

Five per cent. discount on orders from 20 to 50 tons. Special rate for Leatherhead residents: 1-3 tons at 30/0 per ton delivered.

The plant was designed and constructed by Heenan and Froud Ltd., and installed under the direction of A. F. Alexander, B.Sc., Engineer and Surveyor, Leatherhead U.D.C.

*With grateful acknowledgments to
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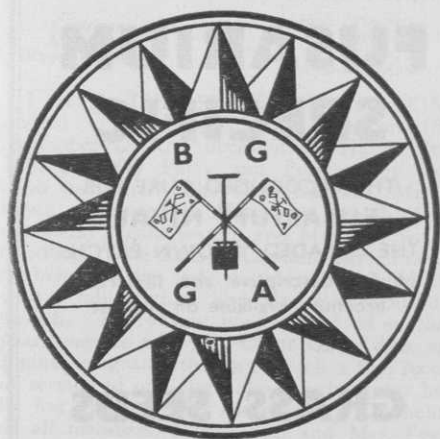
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News



from the Sections

NORTHERN

By J. Parker

Chairman:
G. W. MASON
(Halifax West End)

Hon. Secretary:
8 Goit Stock Terr., Harden,
Bingley, Yorks.

IT IS WITH THE DEEPEST REGRET that I have to inform members of the death of Ted Calam, of Ganton Golf Club. I did not hear in time for the Section to be represented at the funeral, but have written to Mrs. Calam expressing, what I am sure is the feeling of all members, their sincere condolences.

A most loyal and popular member of the Association, unassuming and quiet in manner, Ted will be sadly missed.

Mr. S. Downes

Older members of the Section will be sorry to hear of the death, after a long illness, of Mr. S. Downes, a former member of the Association. He was for many years green-keeper to Moortown Golf Club.

December Social

A Christmas social evening was held in the Old Queen's Head, Bingley, on Tuesday, 11th December, when forty members turned up for a most enjoyable evening. Competitions for dominoes and darts were held. A tasty meal of meat and potato pie helped down with liquid refreshment seemed to put everyone into a seasonal mood.

February Meeting

This will be held in the Market Tavern, Godwin Street, Bradford, on Tuesday, 19th February. A representative of B.S.A. will give a talk on "B.S.A. Power Units, Servicing

and General Information". Please make a note of this event.

New Members

We welcome to the Section the following two new members: T. R. Lewis, 63 Dean Park Drive, Drighlington, Bradford, and J. Sharp, Jun., 20 Chislehurst Place, Little Horton, Bradford, both of Woodhall Hills Golf Club.

MIDLAND

By F. Cashmore

Chairman:
G. HART
(Gay Hill)

Hon. Secretary:
76 Four Oaks Common Road
Sutton Coldfield, Warwickshire.

OUR ANNUAL DINNER WAS HELD on the 14th December at the King's Head, Bearwood. The attendance was very good and we enjoyed a successful evening. Unfortunately the date clashed with several events at various clubs, and I received a number of apologies from Vice-Presidents who were unable to attend, wishing us every success.

We were extremely sorry that Mrs. Bretherton was unable to be with us owing to illness. I have now received a message from Mrs. Bretherton in which she asks me to convey her thanks to members for the flowers which we sent and saying how very sorry she was not to be with us. We do hope that she has now fully recovered.

A total of eighty-seven members, including our President, Mr. Carl Bretherton, the Association Chairman, Dai Lord, our Senior Vice-President, Mr. T. R. Groom, and our Editor, Mr. F. W. Hawtree, sat down to dinner. After our President had proposed the Loyal Toast, he called on Dai Lord who proposed the toast of the Association and reminded members that it is fifty years since the formation of our Association by the late Mr. F. G. Hawtree. He then read messages from the Prime Minister and Lord Brabazon of Tara, going on to speak of the Green-keepers' Apprenticeship Scheme and the lack of young recruits to green-keeping. Our Section Chairman, George Hart, responded and endorsed all that Dai Lord had said about the labour conditions on the majority of courses. Mr. T. R. Groom then proposed the toast of Ladies and Guests, saying how much he would like to see more ladies present. We hope members will remember his words and bring their ladies with them next year. Mr. F. W. Hawtree responded on behalf of the Guests and said how pleased he always is to attend the Midland Section Dinner. He also gave us more information regarding the progress of the Apprenticeship Scheme, saying it has now been accepted by the English and Welsh Golf Unions, and under active consideration by the Scottish Golf Union.

The Artistes who entertained us at the concert which followed were, Billy Scrivens, Baritone and Accordionist, Marie Hughes,

Soprano, and James Fenton, Electronic Clavioline, and they were able to hold their own against the Bar with far more success than on previous years. The party of members who went on stage to sing carols rounded off the entertainment with great success.

Mrs. Mason and her daughter were again in charge of the raffle and Mr. Eric Lumby acted as auctioneer, the result of which activities help so much in clearing our expenses. The prizes for the raffle were kindly donated by Mr. Carl Bretherton, Mrs. Mason, Reg. Pugh, and F. Cashmore. We are grateful to our friends of the Trade for their continued support, Mr. Bill Payne and Mrs. Payne, Messrs. Parker & Ballinger, Tudor Mowers of Wolverhampton, a party from D. L. Ford Ltd., Balsall Common, and another from E.T.B. Mower Services, Solihull, which included Ron Stanley who was with Messrs. Ransomes, and is now Service Manager with E.T.B. Members are always eager to ask for advice and this is to the mutual advantage of both.

SOUTHERN

Chairman
J. K. GLASS
(Thorpe Hall)

By W. Mason
Hon. Secretary:
18 Albert Road, Hendon, N.W.4.
Tel.: SUNnyhill 0245

OUR ANNUAL DINNER WILL TAKE place at the Talbot Restaurant, 64 London Wall, Moorgate, E.C.2, on Friday, 29th March. Will members please apply to me for tickets for themselves and their friends. Further details will be given on application.

January Meeting

We were very pleased to welcome Mr. B. C. Clayton, M.A., on the 9th January. Unfortunately, owing to bad weather, and the late arrival of the January Journal which contained a reminder, the attendance was poor but we would like to record a hearty vote of thanks to Mr. Clayton for his most interesting talk which covered most subjects appertaining to greenkeeping in general. Question time which followed seemed all too short.

February Meeting

May I remind members that our February lecture to be given by a representative of Messrs. Parkers will take place on Wednesday, 13th.

MISCELLANEOUS

PROFESSIONALS AND GREENKEEPERS having stocks of used golf balls contact Sparkbrook Golf Ball Co., 295 Highgate Road, Stoney Lane, Birmingham, with a view to filling export orders.

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WELSH

By S. A. Tucker

Chairman:
M. GEDDES
(Royal Porthcawl)

Hon. Secretary:
36 Clase Road,
Morrison,
Swansea, Glam.

I HAD THE PLEASURE OF BEING invited to the Clyne Golf Club on 19th December on the occasion of Harry Fry's 70th Birthday Party and Presentation from Club members. The Club Captain, Mr. A. Lew's, presented to Harry, on behalf of the members, a gold watch, and Mrs. Fry with a handbag. The Ladies' Captain, Mrs. Frayne, on behalf of the lady members presented him with a table lighter and Mrs. Fry received a brooch. Harry has now retired after forty years' service with the Clyne Golf Club, and I must congratulate him on such a fine record of service to one club, also for the great help he has given to the Association. On behalf of all members, I wish him and Mrs. Fry a long and happy retirement.

Spring Meeting

I have made application to the Clyne Golf Club to hold our Spring Meeting there on the 3rd April, 1963, and now await the Committee's decision. The Secretary has informed me that he will notify me at the earliest possible date of the decision, so I hope to publish it in the March Journal. Failing this, I will notify all members by letter.

Subscriptions

I was sorry to hear from Mr. Geddes that there are a few members who have not yet paid their subscriptions. Will these members please give this matter their immediate attention to enable Mac to bring his books up-to-date. Your help can mean so much to others.

NORTH-WEST

By B. Ellis

Chairman
T. Brennan
(Wilmslow G.C.)

Hon. Secretary
Romiley G.C.

ALL MEMBERS OF THE NORTH West Section will, I know learn with profound regret of the death of Mr. J. Williamson, a Vice-President of our Section. At the comparatively early age of 58, Mr. Williamson's death will be a serious loss to all, for he took a keen interest in our Section affairs, and, until recently attended Lectures and Competitions whenever his commitments allowed him to do so.

He was a very popular member of the Stockport Golf Club and for a period held office as their Chairman of Greens.

To Mrs. Williamson and family we offer our very sincere sympathy in their sad loss.

EAST MIDLAND

By S. T. McNeice

Chairman:
D. G. WHITEHEAD
(Wollaton Park)

Hon. Secretary:
40 Laward Road,
Clarendon Park, Leicester

THE SECTION ANNUAL SPRING Tournament will be held at Derby Golf Club on Tuesday, 28th May, 1963, by very kind permission of Mr. F. Constable, Superintendent of Parks, Derby Corporation. Further particulars will appear at a later date.

Change of Address

Mr. W. Earnshaw, The Cottage, Blankney, Lincs., has informed me he is leaving Blankney and that his temporary address for a few months will be 7 Beardshaw Avenue, South Shore, Blackpool.

SITUATIONS VACANT

HARLOW AND DISTRICT SPORTS TRUST LTD.—HEAD GREENKEEPER required for the new Canon's Brook Golf Course at Harlow, Essex. The course has been laid out to championship standard and play over the first part of the course will start in April. Applicants should be greenkeepers with some experience, looking to the future, and meantime willing to shoulder the difficulties attached to a new project. The successful applicant will come under the general supervision of the Trust's Head Groundsman and will probably have two assistants. He will be offered living accommodation to rent within easy distance of the course. The pay will be up to £750 a year according to qualifications. Applications to: O. W. Gilmour, Terlings, Harlow, Essex.

GREENKEEPER/STEWARD — Married couple, salary plus profits from catering and professional's shop. Scope for income from lessons if qualified. Modern three-bedroom house rent free adjoining club, 9-hole course. To take up duties early February. Apply stating experience, with names of two referees, to: Hon. Secretary, Glossop & District Golf Club, Glossop, Derbyshire.



THE SCOTTISH GOLF GREENKEEPERS' ASSOCIATION

ON BEHALF OF ALL THE MEMBERS of the Scottish Golf Greenkeepers' Association, I would like to thank our past Chairman, Mr. W. Bradford, also our past Secretary, Mr. I. Fraser, for all their work for the Association. We also give to Mr. D. L. MacDiarmid, Royal Burgess, as Chairman, and Mr. J. Campbell, St. Andrews, as Vice-Chairman, a very warm welcome to their term of office.

Will members please note that the new Secretary and Treasurer is R. B. Moffatt, 71 Kelton Street, Glasgow, E.2.

R. B. MOFFATT,
Secretary.

NORTH & MIDLAND SECTION

OUR FEBRUARY LECTURE WILL BE given by Mr. J. B. Lithgow, of Mason (Omoa) Ltd., on "Soil Fertility and Fertilisers" in Nicoll & Smibert's Restaurant, Dundee, at 7-0 p.m. on the 12th February, 1963.

This will be repeated in Westburn Park Rooms, Westburn Road, Aberdeen, on Wednesday, 13th February, at 7-0 p.m. for our Northern members.

Social Evening

Our Social Evening will be held in Nicoll & Smibert's Restaurant, Dundee, on Saturday, 23rd March, 1963, at 7-0 p.m. Tickets may be obtained from members of the Committee.

WM. RITCHIE,
Secretary.

EAST SECTION

OUR FIRST LECTURE OF THE winter was held at the Free Gardeners Institute on the 6th December, when the speaker was Mr. Ian Forbes, of Messrs. Stewart & Co. Ltd. We had a good turn out of members and a vote of thanks was given to Mr. Forbes by our Chairman, Mr. H. Smith, for a most interesting lecture which was enjoyed by all.

Our February Lecture which was also booked for the Free Gardeners Institute will now be held at the Torphine Hill Golf Club (by kind permission of the Committee) on the 14th February at 7-0 p.m. This will be followed by a meal.

A. HUISE,
Secretary.

B.G.G.A.

HON. SECRETARY'S NOTES



A MEETING OF THE EXECUTIVE Committee will be held on Saturday, 23rd March, 1963, at the Imperial Hotel, Birmingham, at 12 noon. Luncheon interval will be at approximately 1 p.m.

C. H. DIX.



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