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The Mushroom Journal

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Chairman's New Year Message



have forgotten to return the pledge form or because you were unconvinced, to send it to the MGA office without delay in the light of this reminder and the further information you have been given by the AB Agency. We as producers must take heed of the housewife's requirements by providing a quality product. There is an increasing awareness among growers that quality rather than quantity is now becoming a high consideration when one is choosing one's spawn requirements. This is something to be applauded.

This new year heralds other changes for our Association. The decision at the Annual General Meeting to hold this in a central venue and apart from the conference was taken in the hope that it will help many more growers to attend this important event and increase their participation in Association affairs. The meeting will be held in late Spring, we know that there are many of you who find it difficult to leave your farms for any length of time. We therefore ask you to support this innovation and to come and take part in discussions which affect both you as individual growers and our Association as a whole. It also presents a wonderful opportunity for our members to meet other growers and old friends.

The Conference will take place as usual in the Autumn at the Bedford Hotel, Brighton from 27th to 30th September. The usual programme has been rearranged, at your suggestion, and will incorporate the banquet within the conference programme and not positioned on the last night as hitherto. This will, we hope enable you, as members of our Association, to take a fuller part in its affairs and at the same time be able to do so at less cost. We look forward to seeing you all at both the AGM and the conference and wish all our UK and overseas members a *Prosperous and Happy New Year!*

ADRIAN SAMPSON

At last 1982 is behind us and I suspect many industries are pleased to see the end of it. We, more than most can possibly look forward with a more enthusiastic outlook. Our Association has at last taken a big step forward in realizing the need to place our product before the public's attention as often as we possibly can. We well understand that to achieve this aim money is needed just as it is for so many other areas of our business. The promotion of our product is one of these areas, and should always be high on our list of priorities. You will by now have had the opportunity, either at the conference or at your local area meetings to have heard of our promotional plans — so ably put to us by AB Advertising Agency. They have investigated the market and demonstrated to us many excellent ideas for the promotion of our product to the public and trade.

I urge you, if you have not already pledged your support for this campaign, either because you

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MGA Executive Committee

Adrian Sampson, *Chairman*

Jeff Green, *Vice-Chairman*

David Stanley-Evans

Geoff Ganney

Peter J. Hearne

Barry Howes

Harold Linfield

Peter W. Middlebrook

Douglas Miller

Merric Prince

Trevor Smith

Charles Spencer

Hugh J. Barton, *Hon. Treasurer*

Articles submitted for inclusion in the Journal are always welcome. Whilst the Editor cannot undertake to publish all the copy received, submissions will be acknowledged. Originals, wherever possible, will be returned to the contributor, who will also be notified as to if and when the article will appear.

No responsibility can be accepted by the Editor, the Editorial Board, or the Mushroom Growers' Association for statements made or views expressed in this Journal, or for any advertisements included.

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MGA AFFAIRS

New MGA Chairman

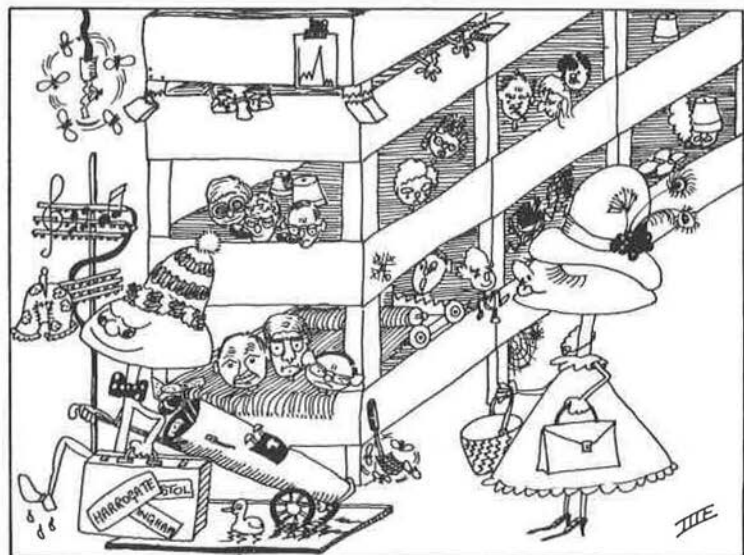
Mr A. S. D. Sampson has been elected Association Chairman for 1982-83. Adrian Sampson entered the industry in 1965 and began training with the late Graham Griffiths at the Country Kitchen Buxton farm. This was followed by a period with John Peaker. He entered the family business of Sampson Mushrooms Ltd, later becoming a director, and then in 1974 Managing Director. He was elected to the Executive in 1980 and as Vice-Chairman in 1981.

And new MGA Vice-Chairman

Mr J. H. Green has been elected as Vice-Chairman of the Association for this year. Jeff Green has had a long and distinguished career in the industry, which he entered in 1945. After a period at Nottingham University, where he read horticulture, he joined A. G. Linfield Ltd in 1956. In 1964 he became a partner in D. W. P. Dales & Co. at Littlehampton, which, after reorganization in 1974, became Arun Valley Mushrooms Ltd.

He has been an active member of the MGA being elected to the Executive Committee in 1979, he has served on the Education and Training sub-Committee since its inception and has been Chairman for four years. He has also been a member of the Research and Development sub-Committee for the last three years.

Outside the Association, Jeff has had a long and close connection with the West Sussex College of Agriculture and Horticulture. He joined the governing body fifteen years ago and for the last five years has been Chairman of the Board of Governors.



Above is reproduced the chairman's card distributed at our Conference. See how many faces you can recognize. Answers are given on the first page of Bush Telegraph. No prizes and nothing is intended by an inclusion . . . or an omission!

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Barry Howes.

New Executive Committee Members

The Executive Committee sees the return of two 'old hands' this year in the shape of Barry Howes and Douglas Miller.

Barry Howes, of Salliota Ltd, West Sussex, was elected to fill the vacancy left by the early retirement of Jim Tolhurst. He first served on the Executive from 1973-76. He has been involved with the Association's publicity activities for several years, joining the Marketing and Publicity Sub-Committee in 1974. He has also served on the Conference Committee, taking over the Chairmanship from John Bradfield at the Yarmouth Conference, in 1979.

Douglas Miller, of Birnam Mushrooms, Kent, began farming in 1958. He has been an active member of the Association for many years, and has already served two terms on the Executive Committee from 1966-71 and again from 1974-76. Like Barry Howes, Douglas has also been closely associated with the MGA's publicity effort for a considerable time. He joined the Marketing and Publicity sub-Committee during the 1960s and took over the Chairmanship for the 1973-74 session.

Overseas Visitors

Received a visit from Trevor Harden of Howden Equipment, Sydney, Australia. He is in Europe explaining



Doug Miller.

the application for a new machine which is being used 'down under' for the recycling of casing material.

Mr Graham Boonzaier from South Africa, a friend and associate of Tim Crawley who many of you will have known before his departure for South Africa some five years ago, called in to see us and take out membership in his own right. Welcome, good to see you, you are always welcome.

Short Course

The 10th Mushroom Short Course will be held at Bath University from 11th-15th April 1983.

Festival of the Fruits of the Earth

The 'Festival of the Fruits of the Earth', held at Westminster Abbey on Sunday, 31st October, was attended by over a thousand people. The thanksgiving service, organized by the

Abbey in association with New Covent Garden Market, was held at the request of the Dean to revive the once close links between them.

Seventeen nations, including Great Britain, were represented, and their attractive displays of fruit, flowers, and vegetables added colour and vibrance to an already splendid setting. During the service representatives of each exhibiting country, in national costume, made offerings of produce and flowers to the altar.

The theme was 'One World' and Tony Wolff, Chairman of the Covent Garden Tenants Association, emphasized in his address, the tragedy of the ever increasing dichotomy between rich and poor in a so-called civilized world.

Included in the prayers was a plea that in the midst of such abundance we should not forget the many millions, particularly children, who still have to struggle for survival, and the money raised from the Festival will go to the United Nations Children's Fund, UNICEF.

Several of the British displays incorporated mushrooms, and at the service the Association was represented by the Chairman, Adrian Sampson and his wife. Our PR Alison Baldock was also among the British representatives in the offertory procession.

Around the Areas

The Eastern Area held a meeting at the Post House Hotel, Ipswich, on 11th November. It was attended by forty growers who heard a stimulating talk by Phil White of GCRI on Pest Control Strategy. If there is an area which hasn't heard this talk then I would consider it a must for a future programme.

Ferd Hensby, who had been persuaded by Chairman Barry Hughes to overcome his natural inclination not to talk in public, gave one of the best talks I have had the fortune to listen to on the practicalities of compost and composting. As a bonus the AB

Sinden Award nominations

Members are invited by the Sinden Award Committee to send the MGA Secretary names of those they think should be considered for this year's award.

The award is made each year to someone who has made an outstanding contribution to our Industry. A thought behind your nomination might be to encourage one of the younger members of the Industry.

A cheque for £100 together with a suitable scroll is the recognition given to the award winner. Nominations should be drawn from men and women engaged in research, development, advisory work or industry.

Nominations should reach the MGA office by 28th February 1983.

Agency had been asked by the Executive to give a shortened form of their conference presentation on marketing and advertising plans for the benefit of those members who were unable to attend the conference. A very full and interesting programme, the contents of which spilled over into the evening — and drinking time.

Think British

In June 1982 the 'Think British' campaign was launched to promote British produce and manufactured goods to the British public, and to draw their attention to the correlation between supporting home producers and the preservation of jobs in this country. In addition to this the campaign aims to improve design, availability, and quality by passing on consumer comments and criticisms to manufacturers.

As part of the overall strategy various regional launches have also been organized. One of these consisted of the Great British Breakfast, held at The Albany Hotel, Birmingham, on 25th October. Naturally, you can't have a British breakfast without British mushrooms. So we ensured that all those present — including many well-known names from TV,

theatre, and journalism — did not miss out on theirs, with plenty of posters to remind them to continue to 'take some mushrooms'!



Margaret Charrington and Simon Preston of the 'Think British' campaign with (centre) Stephanie Turner of TV's 'Juliet Bravo' — at the Great British Breakfast.

South West Area

The South West Area combined a day-long area meeting with a Christmas lunch. The event was a great success and an example which could well be followed by other areas.

The programme contained a talk on 'Thoughts on Controlled Cropping' by the ubiquitous Peter Flegg. To complete the morning's programme AB Advertising presented a shortened

form of their conference presentation, giving an opportunity to those who were unable to attend at Harrogate, an insight into the MGA promotional plans.

An excellent, informative and informed talk on 'The Grower and the Law' was given by Mr A. J. Mitchell of the Local ACAS office. This is the sort of talk which would be of interest to all areas and was very well received.

Phil White of GCRI talked on 'Pest Control Strategies' which looked forward to the coming year and the preparations we can make. The day closed with a talk by Bob Coulson of Haymes Farm on their experiences of 'Composting in Bulk'. An excellent talk which smoothed out many of the difficulties likely to be experienced by anyone taking up bulk composting.

DIARY DATES

1983

22nd, 23rd, 24th February: BGLA Conference and Trade Exhibition at Harrogate.

May: MGA Annual General Meeting. Date to be notified.

August: North American Conference, Vancouver. Date to be notified.

27-30th September: MGA Annual Conference, Bedford Hotel, Brighton.

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The Best Conference for Many Years

From reports received by members of the conference committee, this would appear to have been one of the most successful and enjoyable conferences for years.

There were a number of innovations which, although they could have been a disappointment, turned out to be most successful and much enjoyed by the delegates. No small part of the success was due to the atmosphere and particularly the staff of the Majestic Hotel, Harrogate, who stinted no effort to make the conference a success. The speakers and the participation sessions were particularly successful and the farm visit to Charles and Edward Spencer's farm in Leeds, together with their generous hosting of lunch after the visit, was indeed a high-spot.

The banquet too was a great success; particularly enjoyable and amusing was the response to the guests given by guest speaker Mr Brian Walsh, a Leeds QC and Recorder. The attendance at the conference banquet was particularly good, bearing in mind the present difficulties of our industry, and greatly encouraged the MGA Chairman and Barry Howes, the Conference Chairman.

The Wednesday registration day got off to a good start with the sporting activities. Unfortunately, there were too few people interested in the shoot and this had to be cancelled. The golf held at Pannal Golf Course was very successful despite the fact that those hardies who usually arrive on the Tuesday to get a round in before the competition and discover the holes and the difficulties, were frustrated by Tuesday's torrential rain. However, undeterred by such small considerations, Wednesday became a great social occasion with members meeting each other again after some time, so that next morning when the Chairman, Mr Harold Linfield, gave his welcoming address, the lecture hall was packed with members eager to hear what was in store for them.

Once again, the organizing committee were lucky in obtaining an outstanding speaker to get

the conference off to a good start. Dr Solomons of the RHM Organization gave a most interesting talk on mycoprotein technology in the food industry. The session chaired by Mr Harold Linfield, gave members much to think about with regard to the future of protein and feeding the world's population.

The second session chaired by Mr Gerald Parker was given by our old friend Mr Doug Miller. In 'I did it my way', he regaled members with his own inimitable way of running his farm and growing and selling mushrooms.

After coffee, Cathal MacCanna of the Kinsealy Institute, Dublin, gave us a talk on the 'Best of all possible worlds' and brought us up to date with much that is happening in the mushroom world beyond our shores.

The afternoon session started with Mr Pieter Vedder of Horst — the 1982 Sinden Award Winner — giving his Sinden Award lecture 'Our formula to be competitive in mushroom business'. One has come to expect over the years a very high standard from Pieter and his audience were not disappointed.

This was followed by an innovation as far as our conferences are concerned. In an effort to encourage participation from members during the conference, the committee had lined up four noted, I almost said notorious, speakers, who in four separate areas of the hotel, talked for five minutes on their particular subject, followed for the next 20 minutes or so by questions and general conversation with members. At the end of each 25-minute session there was a change-round so that every speaker addressed every delegate. There was only one problem with this section of the programme, that was, how to stop each session in due time and move the participants around ready for the next. Thank you Drs Fred Hayes, Joe Hussey, Jim Sinden, and Norman Barnard for a most interesting and stimulating session, one we'll repeat no doubt.

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Ladies Outing

The foyer on Wednesday morning was like the main entrance to Anfield. Male members making their way to the lecture hall, their wives fighting their way out and on to the bus which was to take them to York, and a tour of that beautiful and historic city. The weather, which up to this stage had not been terribly kind, at least decided not to rain, even if it could not bring itself to shine upon them. From reports on their return, a most enjoyable time was had by all.

Reception for Overseas Delegates

The Chairman, Harold Linfield, had great pleasure in welcoming our overseas visitors to the reception given in their honour. We are always delighted to see our many overseas friends at the conference and it is the Chairman's pleasure to mark the occasion with a little hospitality. Thank you for coming.

Conference — continued

Does nothing stop the enthusiasm of the British mushroom grower? At 5.30 a.m. the hotel foyer was filled with members who were raring to visit the Leeds wholesale market, both to meet their wholesalers and to see how this modern market operated. On arriving in the hall in good time for



Leeds wholesale market visit at the conference. From left to right: Barney Greenhill, Paul Lawrence, Harold Linfield, Mr A. Randall, Bob Pinkerton, 'Simmy' Tan, and Norman House.

the coach, I was not surprised to see the same old hardy faces who did not appear to have been to bed waiting for the coach and being asked if I would care for a 'noggin' to keep the cold out before we left. Arriving in the market, we were met by Charles and Edward Spencer who gave us a conducted tour and, wonderful surprise, their uncle Ronnie Spencer of R. & A. Spencer, Leeds market, had laid on a breakfast for us which was most welcome, considering the hour and the temperature. There were a number of potions to be added to the coffee to help keep the cold at bay. A most enjoyable and instructive tour, for which we thank Ronnie Spencer and staff for all their help and generosity.



A section of the conference hall showing some of the delegates.

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At 9.30 a.m. some of the ladies left on an optional tour of the Dales kindly chauffeured by Pam Middlebrook and Margaret Dumbreck, whilst in the lecture hall, Geoff Ganney orchestrated a 'Comedy of Errors'. The contributors to this session Messrs Bob Dumbreck, Ron Jones, John Lockwood, Doug Miller, Bob Pinkerton, Sammy and Adrian Sampson, Peter Stanley-Evans, John Stewart-Wood, and Raymond Thompson, regaled the delegates with the catastrophes that had hit them and which they had brought upon themselves in their careers as mushroom growers. The session conducted not without much wry humour was a tremendous success.

After coffee, the AB Group Ltd, gave a marketing presentation under the chairmanship of Mr Charles Spencer. You will remember that at the Extraordinary General Meeting last January the M & P committee was asked to explain to the membership just what they will be getting for their money in terms of advertising and promotional activity. It was the considered opinion of all present that this was a superb exposition, both of the problems of the market and methods which should be adopted to overcome these.

The first session after lunch was a lecture by our old friend Dr Joe Hussey who, as he put it, was appearing by kind permission of, and instead of, the Director of GCRI, Dr Derek Rudd-Jones, who had been asked to address the membership on the subject of 'Are we getting our money out of research'. Unfortunately because of an overlap of appointments, Dr Rudd-Jones had to be at the Ministry and, therefore, Joe stepped into the breach most admirably. The message to me at least was that 'you pays your money and takes your choice, but see that you get your choice'.

The Annual General Meeting Proceedings

The Annual General Meeting which followed Joe Hussey's talk is the subject of a special report elsewhere in this issue.

Allied Trades Reception

In the evening, the Allied Trades gave a reception to all the conference delegates and we would like to take this opportunity to thank our Allied and Trade members for their great generosity in hosting this most friendly and

congenial occasion. Once again it is our pleasure to thank Ferd Hensby who organized the whole affair. I am sure he did not do it without the help of Sylvia as well — thank you both.

Farm Walk

Three fully-laden 54-seater coaches left the hotel at 9.30 a.m. and headed for Greenhill Nurseries in Leeds to enjoy a tour of the farm and to renew old acquaintances with Charles and Edward Spencer's father Albert, who founded the farm. The visit itself is the subject of a separate article, but I cannot let this occasion pass without thanking all the Spencer family for their most generous invitation to lunch at the Parkway Hotel; this really was one of the many highspots of a most exciting and rewarding conference.



Adrian, Sammy, and Julie Sampson.

Banquet

Arriving back at the hotel from the farm visit at 4.00 p.m., members had time to relax, bath, dress, and to be received by their Chairman at 7.00 p.m. The number of people attending the banquet was 112 including wives and guests. The guest speaker this year was Mr Brian Walsh Q.C., who is also a Recorder in the North East Area. Not unnaturally, his subject concerned the law in its many aspects and was a scintillating performance which kept guests, the band, and the staff in stitches for the next twenty minutes. For this the judges who gave our horse-racing speaker of two years ago, 9.6 points for his effort, gave Mr Walsh six months of his own punishment.

The sports trophies were presented by the Chairman's wife, Cecile Linfield. The Sinden Trophy for golf was presented to Barry Woodcock, the David Cover Squash Racquets Cup to Barney Greenhill. The Chairman-Elect received a box of golf balls for achieving the worst possible

score for the round and Mrs Joan Barton won the special prize given for the best entry in naming the figures in the cartoon, which is also illustrated elsewhere in this *Journal* and formed a welcome from the Chairman and his wife to delegates when they arrived in their rooms at the hotel.

Pieter Vedder, who was introduced by Peter Stanley-Evans, Chairman of the Sinden Award Committee, received the Sinden Award scroll and a lead crystal Claret decanter. The trophies were not the only awards for winning the competition, since Messrs David Cover & Son of Chichester generously contributed wines, spirits, and golf

balls for participants of various competitions, and Engineering Design & Production of Catfield presented cut-glass goblets for the best attempt at the seventeenth hole.

The last official act of the outgoing Chairman, Harold Linfield, was to invest Adrian Sampson with the Chain of Office for 1982-83.

The conference received a gratifying amount of coverage locally there being a two-page spread in the local edition of the *Yorkshire Post*.

Conference papers will be appearing in future editions of the *Journal* for the benefit of those who were unable, for various reasons, to attend.

Conference Personalities



Mrs Marianne and Mr Frank Stewart-Wood talking to John Peaker (centre).



Dr Ron Edwards relaxes over a cuppa with Murray O'Neil of Canada.



'Ferd' Hensby and Shirley and Merric Prince enjoy a joke.



Two overseas guests enjoying a talk and a drink. Murray O'Neil, Canada, explaining a point to Pat Walsh of Eire.



Pat Walsh and Cathal McCanna, both from Eire, in conclave.



That must have been a good one! Chairman, Harold Linfield enjoying a joke with guest speaker, Brian Walsh Q.C.



Messrs 'Simmy' Tan, Stan and Mary Hughes with Mr and Mrs Leo McCann.



I don't like to think of what is going to happen to Jan Pijnenborg next!



From left to right: Harold Linfield, Jeanne and John Rodwell, Judy O'Neil, and Hugh Barton.



Russell Howes, Joan Lockwood, Mrs Toby Howes, and John Lockwood.



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NEW VENUE AND TIMING FOR AGM

The Annual General Meeting of the Association took place at the Majestic Hotel, Harrogate, on Friday 8th October 1982. In the chair was MGA Chairman Mr H. J. Linfield.

CHAIRMAN'S REPORT

The Chairman reported that, following the request made at the last AGM, the Executive had discussed the matter of conflict of interest, i.e. the possibility of an Executive member possibly representing more than one size band through the interests of his company, and decided that in future, ballot papers should contain a declaration of interest by those nominated for election to the Executive. Thereby ensuring members are fully aware of a nominee's mushroom interests outside his particular company.

TREASURER'S REPORT

The Treasurer informed the meeting of the new format which had been adopted for the accounts. These had been drawn up by the auditors in order to coincide with the quarterly figures presented to committees. He expressed satisfaction with the state of the Association's financial affairs. He also informed the meeting that the £1,437 which had been set aside in the accounts against bad debts last year had been recovered. Mr John Bleazard asked whether it was necessary to maintain a large amount of capital on deposit and the Treasurer replied that in his opinion it was, taking into account inflation etc. But he felt that this was a matter that the Executive could discuss in the near future. In fact this matter was brought up again later in the meeting.

EDUCATION AND TRAINING

In addition to his report in the *Journal* Mr Green told members that the first specialist course had been held at Brinsbury under the auspices of Dr L. Jacobs and Mrs Helen Linfoot. This had

been extremely successful. Mr Cracknell asked about the frequency of the courses and was informed that until the sub-Committee had met to discuss this, he was not able to say. However, members should bear in mind that the sub-Committee could not make too many demands on the few people available to provide the expertise.

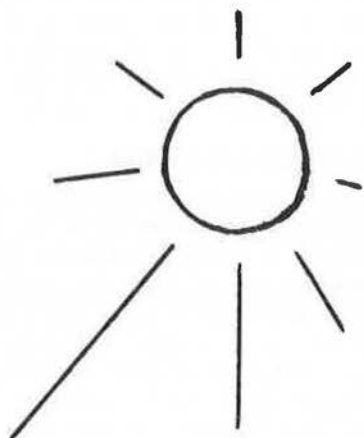
MANPOWER AND ECONOMICS

Mr Stanley-Evans told members that if they ever wondered what they received in return for their subscriptions, they could look at the effect achieved by intensive lobbying by the committee on the last wage award. He went on to explain the background to the AWB and the claims being made by the unions. Our Association had already made very clear to the employers our position with regard to the claim and Professor Dickson, chairman of the AWB, had also been lobbied direct with our arguments.

Turning to the industry questionnaire, he hoped this had proved useful to members. Certainly the information had been invaluable when compiling the arguments for the wages board. Mr Stanley-Evans made a special plea for members to follow the example of Mr Gowers, and write to not only their own particular MP but the Minister with regard to the effects of the workers' wages claim on the industry. Mr Cracknell mentioned that a considerable amount had been said recently about horticulture being separated from agriculture for wage negotiations purposes and was told by Mr Stanley-Evans that the Agricultural Wages Board had a limited life as the Government had announced its intention of disbanding the Board. Sqdn Ldr Hearne asked what was the reasoning behind the 125% holiday-pay award and was told that the independent members of the AWB had felt that a worker should not receive less money when on holiday than when they were working and although the MGA had put forward a formula for arriving at the same conclusion, this had been

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rejected by the AWB. However, since the Scottish Agricultural Wages Board had adopted the formula put forward by the MGA, this matter was being raised at the next meeting, particularly in the light of complications that the existing formula had caused. Mr Deakin asked a question regarding overtime and was told that the MGA felt that it should concentrate its efforts on fighting those proposals which would do the greatest harm to the industry, rather than spread an argument thinly over all issues.

RESEARCH AND DEVELOPMENT

Whilst Mr Paul Middlebrook had nothing further to add to his report which appeared in the September *Journal*, he did stress again to members, the impact the Manpower Committee had achieved on the last wages award with only 48 hours' notice before the final ratification.

MARKETING AND PUBLICITY

Mr Charles Spencer had nothing to add to his report, except to say that he thought the presentation by the advertising agency in the morning had been a great success and that obviously much discussion would take place later in this regard.

SUBSCRIPTION RATES

Mr Merric Prince said he felt that as the accounts showed that the funds of the Association had been well managed under the present economic circumstances the Association might consider it a sensible and reasonable suggestion to waive the inflationary factor on subscriptions for the year commencing 1st January 1983. Mr David Stanley-Evans, however, felt that the surplus funds could better be used improving services to members in a number of areas. Mr Peter Middlebrook felt that the Association should be looking into ways of improving efficiency and services provided to members and moved an amendment to the proposition. The outcome of which was that subscriptions and the inflationary factor would conform to existing Association rules.

CHANGES FOR AGM

Mr Raymond Thompson moved a proposition that the AGM should be held in London in the spring and the conference shortened by one day. Mr John Bradfield explained to members that the

reason for incorporating the AGM with the conference originally had been one purely of economics due to the state of the industry at the time. There followed a lively discussion on the various issues involved and it was finally agreed that the Executive should discuss the matter fully and look at all the implications of this decision and report back to the members.

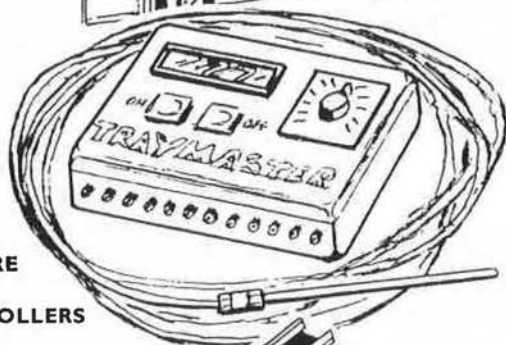
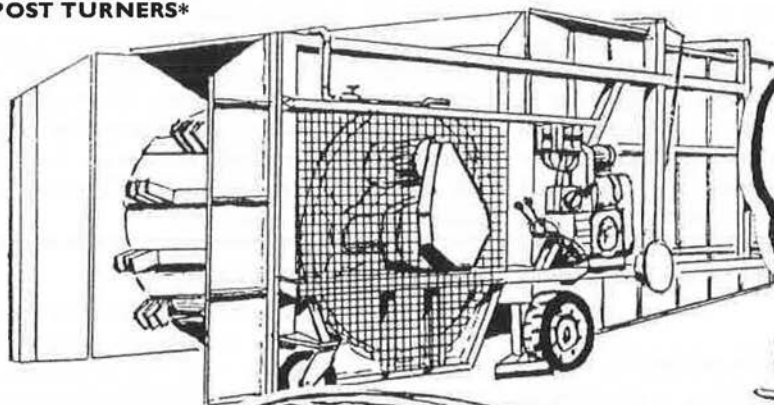
SPAWN CONTRIBUTION

The Chairman told members of the background leading up to the proposition before them. Following the decision of the EGM and the reservations expressed by members on how the money would be spent, the M&P working party had interviewed several agencies and selected the AB Group of Leeds to make a presentation to members which they had seen in the morning. Also the Executive had had to consider the technicalities of collecting the levy together with Interspawn (to whom the Association was deeply indebted for their co-operation) bearing in mind rule 23 of the Association which states that those not paying the spawn levy must be asked to leave the Association. After much deliberation, the members had before them the means by which this levy could be collected. A list of those supporting the supplementary levy would be published in the *Journal*. The meeting discussed the many implications of the levy on the industry. Mr Peter Munns proposed that the Association should look into different ways of collecting this levy, perhaps by direct debit to the Association. Mr Green felt that the method before them might not be a tidy solution, but it was one reached after much discussion and that should be borne in mind. The Chairman told members the Executive would be making it a priority to look at alternative methods of collecting this levy. The commitment forms the members would be asked to sign would be for a period of two years only, at which time the situation would be reviewed. The motion was carried and the Chairman assured the members that a letter would be sent to all members explaining this decision.

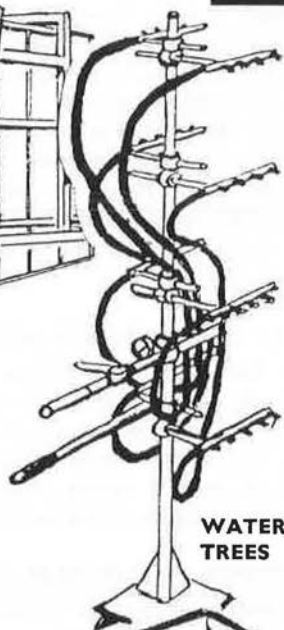
ELECTION OF NEW OFFICERS

The Director announced the results of the election for vacancies on the Executive. Mr Peter Middlebrook had been re-elected for a further four-year period in the large band. Mr Charles Spencer for the medium band. Mr Douglas Miller

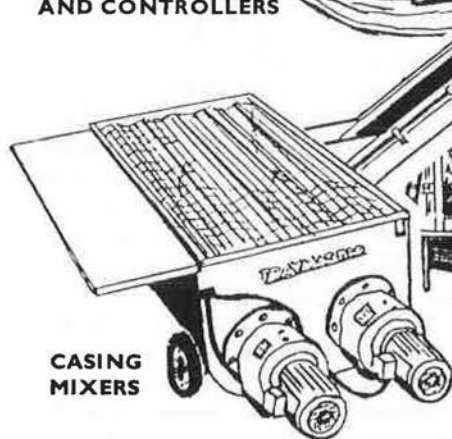
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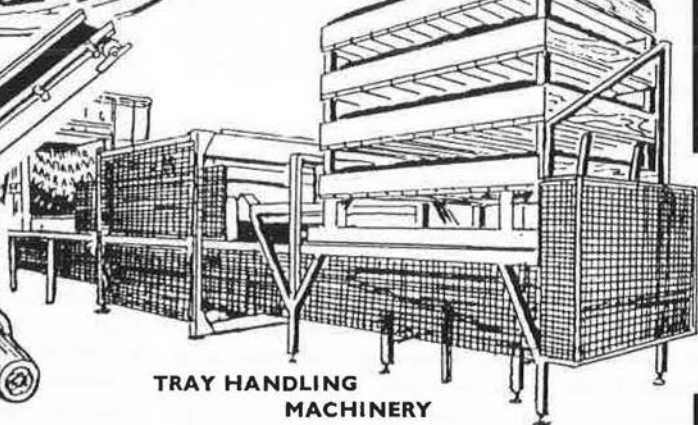
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had been elected to fill the vacancy in the small growers band and Mr Barry Howes had been elected to fill the vacancy left by the premature retirement of Mr Jim Tolhurst.

VENUE FOR 1983 CONFERENCE

The Director informed members that this would be held at the Bedford Hotel, Brighton from Tuesday 27th September until 30th September inclusive. With regard to a venue for 1984 conference, the committee were asked to consider Gleneagles Hotel in Scotland and consider changing the conference programme so that the annual banquet would be part of the conference, rather than being on the last night. In the past this meant that many members had to stay on for an extra night in order to attend and in the present economic circumstances of our industry, this prevented a number of members from attending the function. Bearing in mind the decision taken by members to alter the venue and timing of the Annual General Meeting and that the Executive had been asked to discuss this, no date was decided for the next meeting.

NEW CHAIRMAN AND OFFICERS

At an Executive held immediately after the Annual General Meeting, Mr Adrian Sampson was elected Chairman of the Association for the year 1982/83 and Mr Jeff Green was elected Vice-Chairman.

The Chairman of the various sub-Committees were elected as follows:

Conference Committee

Mr Barry Howes

Education and Training sub-Committee

Mr Jeff Green

Manpower and Economics sub-Committee

Mr David Stanley-Evans

Marketing and Publicity sub-Committee

Mr Charles Spencer

Research and Development sub-Committee

Mr Paul Middlebrook

Sinden Award sub-Committee

Mr Peter Stanley-Evans

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Geoff Ganney's *Growing Pains*



1st November 1982

Farmers are being asked to take a greater interest in mushrooms now that researchers claim that it is possible to cultivate at least four different wild varieties, so writes a Paris correspondent in *French News and Reviews*! Are we moving into another era of commercial mushroom growing where small family-type units are to produce in available buildings and market through central agencies?

2nd November

Temperature readings in the compost and air about the same a few days after casing? Doesn't make too much sense, but having checked thermometer accuracy have been assured it is correct! Always remember visiting a long-established shelf grower (don't be kidded it's a Dutch invention!) who, when asked about bed temperatures, calmly explained that he did not believe in thermometers as they complicated the job . . .

3rd November

Considered the virtues of stapling lids on baskets with pneumatic stapling guns as opposed to using rubber bands. After cold storage rubber bands tend to pull the baskets in and if the bands don't do this then they are too weak and the lids fall off. Growers presentation of a good product is generally still very poor and it is a subject rarely tackled at meetings or in the *Journal*.

4th November

Re-coated peak-heat room walls at Marigold with mastic water proofing, which if done every year keeps the insulation in excellent condition. Once any small area is open to steam penetration then moisture vapour deficit will take over and vapour will turn to moisture and collect in the insulation. Important for management to plan ahead so that when a fill is dropped such work can

be carried out easily and efficiently. Cropping problems associated with composting have turned out to be poor peak-heat rooms!

5th November

No straw fire this year!

6th November

The numerous signs around the farm are ready for repainting, no good having a sign if you can't read it!

8th November

Heavy overlay at Marigold caused more work in casting over and tucking in edges to stop eventual 'stroma'! Never really know if such 'titivating' is really necessary or whether 5-10% 'stroma' that doesn't fruit ever reduces yield? Probably it doesn't! Trouble is some strains persist in coming up strongly after airing, particularly with active beds. When this happens it is then difficult to gauge the depth of pinning and you are likely to pin too high on the casing leaving pinheads vulnerable to environmental changes. The next time you try to judge the situation earlier you are likely to pin too deep!! Could do with a series of illustrated articles on the stages of pinning and watering.

9th November

Collected all the various company forms together to see how many we had. Really don't wish to talk about it as they filled the whole of a considerable sized boardroom table, still, waste paper is good for compost!!

10th November

Compost moisture at spawning over 70% which is getting on the high side, must keep a close watch that it doesn't creep up too much. Never understand some of the figures of 65% moisture

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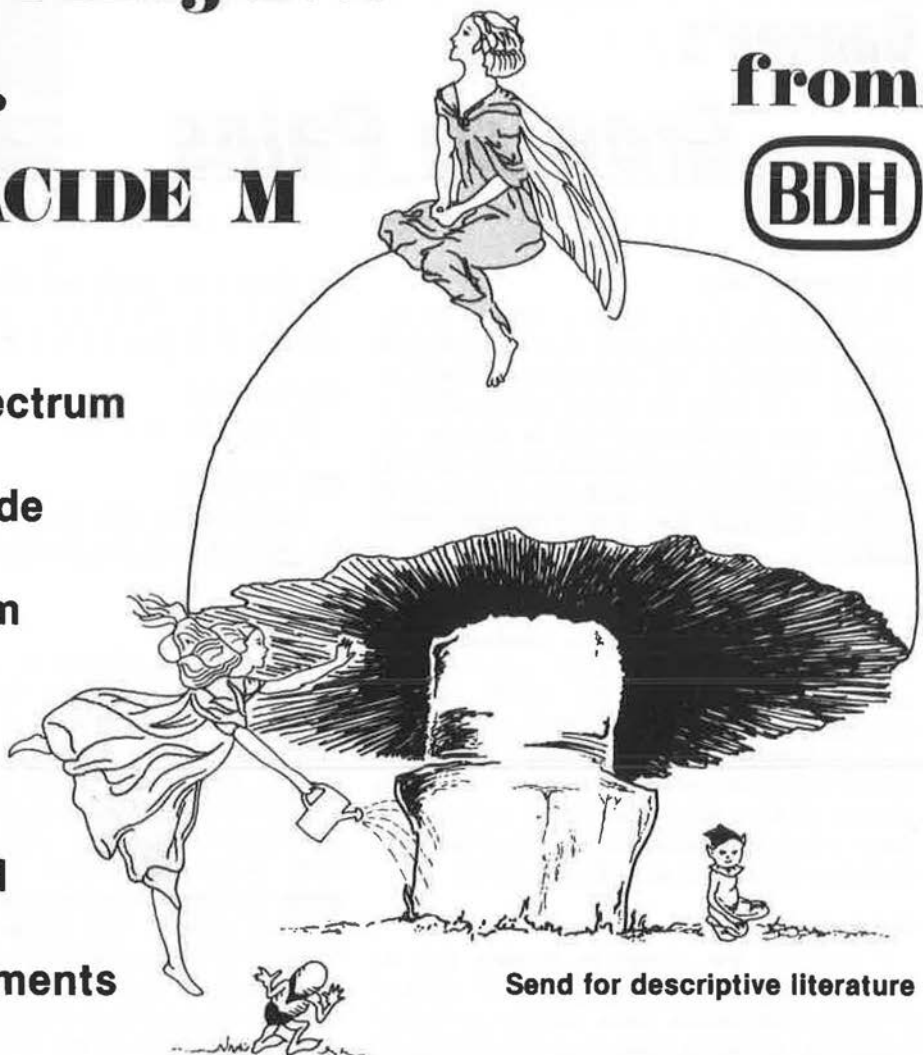
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range given when we visit Holland, except that maybe peak-heating for ten days in shelves or in tunnels removes more moisture? I suppose basically we need to be talking about available moisture as with soils for plant growth or maybe casing? No doubt some strains are better at removing nutrients and moisture from a given compost than others. What would you call them, more efficient biological digesters?

11th November

Biological control of certain mushroom pests keeps coming back for discussion. Don't know how far GCRI have progressed in formulating an integrated programme for controlling pests particularly those wretched Sciarids. Certainly a great deal of basic research has gone on over a number of years and hopefully it may be just the need of a commercial house taking up the challenge. With pesticides availability becoming problematic let's hope it is being seriously considered. Maybe a job for the Association?

12th November

Jim Sinden's 80th Birthday cannot go by without offering best wishes and many thanks for years of mushroom knowledge.

13th November

Received a letter concerning 'Pifferling' mushrooms and their importation — only pifferling mushrooms I know are the small flat ***** that come too thick at second break!!

14th November

Picking all weekend and crops visibly getting large as we watch them, oh for Cathal MacCanna's picking machine!

15th November

Re-introduced casing rings at Marigold in order to even up the casing depth once again. A measured volume is put on to the trays but the depth has been all over the place causing problems with deep pinning in some areas. Nothing quite like wet peat stuck on to mushroom caps to ruin a box of good cup mushrooms.

16th November

Clocked up another year and am absolutely sure it's six months shorter than the previous one!!

17th November

Cook-out temperatures down to 160°F due to valve failure and although we gained on time I am

not happy with such a low range. Probably be all right the odd occasion but as we found when rebuilding the Marigold cook-out rooms, it didn't take long for mites to appear in crops not cooked out. Mites and mushrooms still have many unknown areas, and they can cause considerable problems once established. Certainly wouldn't like them around with 'tunnel' phase II and spawn running.

18th November

Was asked about using 'Tego' as a general hygiene chemical and it was so long ago that it was in general use, had to consult the library on its use. It has been a long standing complaint of mine as to the abysmal amount of information that growers have available as to the efficiency of the dozens of chemicals on offer for hygiene purposes. Quite often I wonder if good hot water isn't just as effective! Certainly misuse of phenols in growing sheds can give rise to lack of pinning.

19th November

Discussed progress of 'Research and Development' with Paul Middlebrook and we both concluded progress was the wrong word!

22nd November

Tried plastic throw-away gloves for disease teams and reasonably pleased with their use. Have to keep it up for a longer time to really see — people don't like changes!

23rd November

Delivery of tray sets showed good standard of Portuguese pine with very few large knots in the longer pieces of wood. Having tried home-grown spruce we have returned to the harder *Pinus pinaster* which, even allowing for the chance of wood splitting with nailing, is a better economic bet. Must check with the Lee Valley EHS trials on different methods of fixings for tray sets.

24th November

Sciarids still about and taking some controlling. Having recently stopped granules in the compost at spawning we are having to rely on chemicals that are not potent enough to give a good knock down.

25th November

Thinking about yesterday and getting very frustrated about the withdrawal of Sulphatep (Bladafume) for use on mushroom crops



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(although there is a sterling effort by Allen Benfel of Darmydel to get it re-registered for use). We have many millions of pounds of mushrooms being exported into Great Britain from EEC countries where this chemical can be purchased and freely used on mushrooms, then these mushrooms are sent on to our markets for consumption. Oh, I have no doubt used within the permitted regulations; regulations that stop us using the chemical!!

26th November

Executive meeting in London well attended and with the new year under way the sub-committees look in for a busy time. Research and Development Committee given a face lift this year with John Bleazard, Peter Hearne, and Tony Claxton joining the regular group. Imagine the Chairman is looking for some active discussions and I have little doubt he will be getting some.

27th November

'Hardgill' type of formation on one strain at the third flush causing some head scratching. Even showing some 'flock' on poorly-formed gills and we can't really put it down to our cultural practice. Certainly no question of dryness or temperature variations, or is that more likely than we imagine?

No doubt it is, because our controls and recordings are not elaborate!

28th November

Farming programme on BBC TV covered selling to the French and last week's French International Food Exhibition. Talk of fruit and vegetable exports spurred me to look hard for champignons! Alas no such sighting although every other vegetable we produce seemed to be on show. Yet at our local greengrocer in Market Harborough we can find excellent quality fresh button French champignons in narrow wicker baskets looking superb! The magic of publicity!

30th November

Spent day sorting out our computer and really wondering what we've involved ourselves in!! Really do need actual day to day finger on pulse if wastage is to be controlled.

John Bradfield telephoned to discuss the recent wage awards, particularly the 85% of basic due to casual workers! What constitutes a casual worker or seasoned worker? John being a great exponent of computers gave me the opportunity to ask some questions and it would appear it all comes back to the software!

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Our Formula to be Competitive in the Mushroom Business

by Pieter Vedder

SINDEN AWARD LECTURE 1982

There are many thousands of mushroom growers in the world. Together they produce about one million tonnes of mushrooms annually. Some of these mushroom farms are very large enterprises, well equipped and mechanized to a high standard with an annual production of many millions of kilograms.

There are also small, simple family farms which produce only a few thousand kilograms per year. However, they all share the same problem and goal, namely, how to produce an inexpensive product for the consumer and, at the same time, live and make some profit, and this with an application of materials, energy, and labour as efficient as possible.

It is simply that in our philosophy an enterprise has to make a profit to ensure continuity. Only the rate of profitability provides a farmer with incentives to continue mushroom growing. Every enterprise tries to achieve this goal in its own way and each mushroom enterprise has its own particular advantages and handicaps. For example in some countries materials and labour are cheap, but the climate may be unsuitable or the market is distant. In other countries the market may be close by, but the growers may be faced with high wages, high costs of energy and expensive buildings. It is necessary to understand these factors, to minimize the influence of the drawbacks and to make the most of the advantages.



This year's Sinden Award winner, Pieter Vedder talking to Dr Jim Sinden.

The Netherlands is a relatively young mushroom producing country; twenty-five years ago the industry was hardly of any significance. At present we rank fifth in the world with an annual production of about 70 million kilogrammes from 800 farms. How was it possible that the industry in the Netherlands could develop so strongly in such a relatively short period, and this despite heavy competition from countries like France, Taiwan, and recently Korea and The Peoples Republic of China?

We don't have the benefit of especially cheap basic materials and our wages are amongst the highest in Europe. Consequently the costs of buildings, machinery and equipment are also high.

Possibly energy costs for agricultural purposes are somewhat lower in the Netherlands, but on the other hand with the Dutch growing system, energy comprises only 6-7% of the cost of production.

Also, our home market is not big enough to absorb all of the production; more than 70% is exported. From the total export, 80% goes to Western Germany, a market where we meet heavy competition from France and some countries of the Far East. In such a market it is possible to maintain one's position only if one provides a product at a competitive price and which is in demand in that market.

The most important factors that caused the vigorous development of the Dutch industry are:

- (a) The friendly and co-operative attitude of Dutch growers;
- (b) The excellent guidance given by the Government to the Mushroom Industry;
- (c) The highly standardized and mechanized shelf system.

Firstly, every mushroom grower is a competitor of his colleagues, in his own country or area and of course also beyond the borders. We, however, think it better for all parties to go on considering each other as colleagues. Competitors try to keep knowledge, experience, and new developments to themselves; colleagues, on the other hand, exchange knowledge and experience. In the meantime we like to keep to the rule that it has to be a question of a 'two-way traffic' between more or less equally developed growers under comparable growing conditions. In my opinion an exception has to be made for the countries of the Third World. Countries which are highly developed in the field of mushroom growing have, in my view,

the mission to make their knowledge and experience available, namely, to those countries where real poverty and famine exist.

Until now in the Netherlands we have always stuck to the policy of an open door and we still don't have the impression of being shot by our own guns. We also realize that, especially in the early period, we too learnt a lot from mushroom growers in other countries, especially the UK. We adopted composting and growing techniques and adapted many things to our circumstances.

The fraternal and co-operative attitude of the Dutch mushroom growers made it possible to establish the well-functioning co-operative enterprises for the production and processing of the most important basic materials. In the Netherlands an enterprise for the preparation of casing soil was founded in 1961. At the moment the output is more than 2,500 m³ of casing soil a week. The possibilities of mechanization and rationalization in a business of this extent may be apparent from the number of co-workers; they produce this amount with only two men.

Over twenty years ago the co-operative composting enterprise was established. It now produces almost 8,000 tonnes a week. The establishment of a second enterprise in the south-west of the Netherlands is now at an advanced stage. Spawn-run compost prepared in tunnels has also been delivered since 1978. It amounts to about 2,000 tonnes a week. Furthermore the owner of the casing soil and composting enterprises, the Coöperatieve Nederlandse Champignonkwekersvereniging (CNC), renders services to the members with filling and emptying of the mushroom houses. There are no longer any mushroom farms in the Netherlands where casing soil or compost is being prepared on site. It is hardly necessary to explain the advantages of this way of operating. The very fact that no fresh manure, straw, chicken manure, or peat have to be kept in store and worked up is very favourable for the hygiene on the farm: less dirt and smell, fewer flies, eelworms, and mites, etc. The scope of the work allows the use of the most modern machinery and equipment. For example the entire steering of the process in the tunnels is computerized. Results from research which will improve the quality of the product or lower the cost price can be applied immediately. At the co-operative enterprise we gather a great deal of information, which can then be used by the growers who prepare spawn-run

compost in their own tunnels. Because the growers themselves participate in the co-operative enterprises (casing and compost), they are very much concerned with the quality of the materials produced. This, I believe, is one of the main reasons why the Dutch grower has very good basic materials at his disposal, and for a very reasonable price too. It is also important that the grower is certain of punctual delivery and continuity: He can do without the facilities for composting, etc. and can use the money elsewhere on his farm. Presently more than 50% of the mushrooms produced in the Netherlands are being grown on pasteurized and spawn-run compost prepared in tunnels. About 30% of the total growing area is being filled with spawn-run compost prepared in the tunnels from the co-operative.

Thanks to the well-functioning co-operative supply companies, mushroom growing can still pay, even on the smaller family farms. More than 80% of the Dutch farms have a growing area of less than 1,250 m². These farms, where the owner conducts the management and his wife organizes the picking are by no means the worst. Amongst the co-operatives the auction also ranks as an important institution. Although at present less than 50% of the total production is sold at the auction, we believe that, in the long run, growers get the best guarantee for the highest possible price by this system.

As mentioned before, the Dutch grower, to a great extent, depends on exports. A considerable addition for a mushroom farm is the trade and the preservation industry. Canneries and dealers/exporters need a regular supply of large and uniform lots together at the same spot, that is, the auction. For growers, as well as for customers, it is of great importance that standards are laid down, namely, as to weight, grading, presentation, packaging, etc. For the quality of his product, the canner is to a great extent dependent on the 'raw' material that is being offered to him.

To remain competitive in the near future we will continue with the co-operative business to ensure the most efficient preparation of the basic materials. For the time being it does not look as if we will give up the mixture of horse manure, straw and poultry manure, for the preparation of compost. The formula is simple, the price is not too high and the results are really good. The same holds true for the preparation of casing soil on a basis of brown and black peat and loam chalk, a by-product of the sugar-beet industry.

Although we use about 2 million litres per year, spawn is not yet produced in the Netherlands. We won't invest money in a co-operative spawn factory so long as we have the impression that others can supply us with the spawn that we want at a competitive price. However, much is being done for the development of new strains: to mention the *A. bitorquis* strains and the new W and U3 strains.

More attention is also paid to the possibilities of the cultivation of other kinds of edible mushrooms, which will mean a necessary extension of the market.

Government Support

The fast development of the mushroom industry in the Netherlands is surely also the result of the intensive guidance by the Government. The Mushroom Experiment Station was established in 1958. It worked on a 50/50 basis, that means the Government and the Industry both paid half of the operating expenses. Furthermore we have the Mushroom Growers' Training Centre and, moreover, the Extension Service with four consultants solely concerned with mushroom growing.

It has been said before that the results of research can be applied quickly by way of the co-operative enterprises. In this respect one can think, for example, of the composition of the compost and casing soil or of the introduction of new strains. It is obvious that education, training and consulting can be much more effective, because of the unity and standardization of the growing system in our country. There is also the uniformity of the materials like compost and casing soil. Add to this the fraternal frankness of the grower and the fact that he is familiar with the institutions mentioned above; the fact that he has — so to say — grown up with these. All this creates ideal conditions for the smooth functioning of education, training and consulting which is directly focused on practical cultivation.

Today more and more countries, especially the developing countries, are interested in mushroom cultivation. For this purpose they also want a guiding institution. By personal experience and observations I was able to form an opinion about the method of formation and functioning of such an institution.

It is my experience that such countries are inclined to set up research facilities as extensive as possible. Apparently they assume that in this way

the best help is given to growers who are in the process of starting a farm.

I, for myself, believe that there is sufficient basic knowledge on hand, especially for the level of cultivation in those countries. A thorough study of the literature will show that much of the planned research will already have been done elsewhere. If facilities are required, these will be primarily for applied research and training and demonstration units. Practically everywhere the very first need is a well-equipped organization to collect knowledge and experience and pass this on in a useful form to the growers. In most countries, I think, there is a big gap between the practical mushroom grower and the research worker. Both speak an entirely different language; and both parties are often insufficiently aware of the possibilities and limitations of the other. Teachers, instructors, and consultants are able to bridge this gap between theory and practice.

Teachers, instructors, and consultants equal to their task are sufficiently abreast of recent developments in research; besides they have a broad practical experience. Consultants and trainers, it may be the same person, have the ability to translate the results of research into useful practical information and they are able to fit it in with practical growing experiences and especially to take into account the economic aspects. On the other hand, researchers need information about the priorities in necessary research. Practical problems will easily reach the laboratories by way of the workers in the field, the trainers, and consultants.

In this context something may be said about the international congresses. Without forgetting their origin and history, namely, in 1950 they were an eye-opener, especially for the growers who discovered that science could help them and for the scientist who learned to see the problems. The earlier congresses released mushroom growing from the atmosphere of secrecy and magic.

Today, however, the situation has entirely changed. Mushroom growing has become a grown-up industry on a scientific footing. On evaluating the present state of the congresses we have seen that it becomes more and more clear, that they are wavering between two opinions. What is in the first place the target of the congress? Is it for the scientists to learn about each others work and methods and exchange results? Or is the goal of such a congress to present the results of research to the assembled growers? As to the

scientific part, I think that symposia, that is, gatherings of scientists working in the same field, might cost far less and bring in more useful results. Visits to institutes and farm walks with big crowds are best avoided. The present wholesale visits require many organizational tricks, but don't yield much. It is open to question also that the right people from the mushroom farm are participating in the congresses. For the small growers such an event is too expensive. It will be mostly the owners and/or general managers of the bigger farms who attend the congresses and not the head growers or the farm managers. A good travel agency is the right organization to arrange excursions to foreign farms (and beaches); for this a congress is not required.

As a rule mushroom growers are not so much interested in the way an experiment was designed and what was the statistical reliability. A grower usually is less interested in the number of legs of a red-pepper mite, but more in how to kill the pest in the cheapest way.

The education and training of the grower has to be regarded in the same sense. It is an undesirable situation if professional knowledge is mainly in the possession of only one person, be this the farm manager or the head grower. At our training centre we distinguish between professional knowledge and professional skill. We recognize the importance of the skills of the middle and lower-grade workers. In our country it is not exceptional, even on a small family farm, to have at least two people who have attended the mushroom training school. We apply as an all-over rule that a 1 kg/m^2 difference in yield influences the production cost by at least 15 cents/kg. We have examples of almost identical farms using the same spawn-run compost out of the same tunnel with the same casing material and producing yields differing by 3 to 4 kg/m^2 . This means a difference in production costs of at least 40 to 50 cents/kg. The few extra kilograms that come from a good compost in a well air-conditioned room are mainly the result of crop management. It is the young man who waters the beds or the man adjusting the ventilation who brings those extra kilograms. Do you know of a system or machine or measure to be invented that would cause such a difference in the production cost? I would, therefore, emphasize the fact that the industry should invest more in raising the professional knowledge and skill of the workers on the farm. To keep this knowledge and skill up to the mark in a fast developing industry, we must

pay attention to the so-called 'permanent' education. Growers who have had basic training at our centre return regularly to the school to learn about the latest developments and to exchange experiences about new techniques. We organize special study meetings for growers to discuss such topics as the use of tunnels, installation of CO₂ measuring equipment and the growing of other edible fungi. The syllabuses of such subsidiary training days are usually drafted in co-operation with consultants and the staff of the experimental station. Wherever possible these people assist in the programme.

Effective consulting appears to be successful only at farms where there is already a good deal of professional knowledge. In the long run a consultant can hardly compensate for lack of knowledge and skill and cannot repair poor farm management. On the other hand, he can help in tracing errors as a consequence of operating blindness and he can advise on the introduction of new methods or machinery. It is very important, in my opinion, that the consultants are government-paid and so are independent, not connected with any commercial business. All mixing of interests should be avoided.

The Dutch Shelf System

It is self evident that to survive in the coming years we have to try to develop further and to bring to perfection the selected growing system. After the teething problems in the beginning, we have learnt and can now say that bulk-treatment in tunnels yields good compost.

Still it appears to be a method that requires much professional knowledge and experience. It makes high demands on the technical equipment of the tunnels. For the control of the various processes, microcomputers will increasingly be used.

The most simple system is pasteurization in tunnels and spawning the compost while emptying into the tunnel. Then, beds, trays or plastic bags are filled and the spawn-run takes place in the mushroom house. This method is especially suitable for small farms. It is independent of the growing system. For a tray farm it has the advantage of considerably less wear and tear on the trays. By building the tunnel inside a 'plastic shed', investment can be minimized. At the same time the advantages of bulk pasteurization remain.

Given a number of conditions, the spawn-run in the tunnels may also proceed very well. We have learnt that spawn-running in tunnels goes better with a higher CO₂ concentration. A simple water cooling system ensures that there is less need for fresh air to control the temperature and that induces a favourable climate for mycelial growth.

By using spawn-run compost, more crops per growing unit can be cultivated in one year. In combination with mechanical harvesting this may reach upwards of seven crops annually.

Emptying the tunnel can be done by a front-end loader, but the compost can also be pulled out by a heavy nylon net.

Tunnels with a capacity of 60 to 70 tonnes, some divided by a wall into two compartments of 30 to 35 tonnes, appear to have the right dimensions.

On some farms the pasteurized compost from two tunnels is, after spawning, filled into one tunnel for spawn-run; sometimes three tunnels fill two. This does mean a deeper layer during spawn-run, but appears to cause no problems.

It is also possible after spawning to put the compost back into the same tunnel in which it was pasteurized. To this end a container has been devised. The compost, if it lies on a net, can be pulled out of the tunnel into the container and spawned. Afterwards this compost is brought back into the same tunnel. The same movable container, holding about 25 tonnes, can also be used for the transport of the spawn-run compost to the mushroom houses. From this self-unloading container the compost is dumped into the head-end filling machine. There are growers who prefer to pasteurize normal phase I compost in their own mushroom house. For them a simple machine has been constructed; it brings pressed layers of phase I compost from up to 140 kg/m² in the beds, by means of a nylon pulling net. With the new spawning machine there is no problem whatsoever to through-spawn at the same time as levelling and pressing those layers.

Indispensable to the modern Dutch shelf system are the special metal racks, with the boards acting as the rails on which the different machines run.

In a modern shelf house not a single piece of wood is used. Metal has several advantages, amongst others it is an aid to good hygiene. No harmful moulds, virus particles or nematodes can penetrate the different parts of the shelves and survive during peak-heating or cook-out. We are convinced that, in the long run, the annual costs for these shelf-beds will be lower than for trays;

wear and tear are much less. The light construction of the racks and the ample distance between the beds ensures a good circulation of air at low speed.

The optimum size of a mushroom house is being determined more and more by the mechanization involved. It appears that long, uninterrupted beds up to about 25 m long offer the best possibilities. Two tiers of five-beds high make a bed area of about 300 m² or, in the so-called doubles, with four tiers about 600 m². This size links up well with the contents of a tunnel.

The so-called head-end filling machine has proved to be an excellent invention. It is so designed that it simultaneously cases the compost layer. The machine places a very even, well-pressed layer of spawn-run compost on a nylon pulling net and it takes only a small amount of energy to pull the net over the beds with the compost inside. At the end of the cultivation period the net is pulled in the opposite direction for emptying. In my opinion, at present a simpler, more rational system of filling and emptying, with such an excellent quality of work does not exist. Filling the beds with the head-end filling machine not only offers considerable labour saving, but also provides absolutely even and flat beds which are necessary for mechanical harvesting.

Because we are of the opinion that good air-conditioning requires a well insulated growing room, we pay much attention to and spend a fair amount of money on it. The newest farms are mostly built with well insulated sandwich-panels, with a smooth, vapour-tight surface. More and more farms install equipment for automatic air-conditioning with special emphasis on ventilation requirements. It is done on the basis of a combination of air temperature, relative humidity and CO₂ concentration.

According to how it is programmed, a micro-processor determines which parameter has priority at a certain moment. Experience up to now indicates that, apart from simplifying crop management, the equipment probably also saves energy. Heavier and more uniform breaks are attained by the usual levelling and ruffling-up or scratching of the casing soil. Therefore simple machines are also being developed. Such machines are not only labour saving, but they do a much better job than can be done by hand. The same holds true for watering the beds, which has to be done on average at least twenty-five times during one growing period.

Even breaks are not only necessary for mechanical harvesting, they are also of great advantage for hand picking. Picking costs form an important part of the overall production cost. Therefore we have paid much attention to this subject.

The open metal racks with thick posts leave ample room between the beds. Picking trolleys which enable the pickers to move along the beds, make hand picking not only faster and consequently cheaper, but they also make the work more pleasant.

The improvement of strains belongs in this category of advantages; we can think, for example, of the new productive U1 strain with its heavy and solid fruit bodies also as a way to lower the picking costs. The picking rate is very much influenced by the size of the fruit bodies.

In my opinion we have to pay more attention to and spend more money on the right promotion of our product. We have to teach the consumers once more what is meant by a good-quality mushroom, somewhat less than silky white and just a little open; such mushrooms are tastier, have more flavour, and are cheaper too. I suppose you also have often seen wild edible mushrooms on a market, how they look and what price people pay for such a product. It is often suggested that mechanical harvesting of mushrooms automatically means bad quality. If open mushrooms are the equivalent of poor quality, they are right.

I think that we would be able to cope with a changing market. A grower who knows how to get breaks of 15 to 20 kg/m² of mainly open mushrooms on his beds for mechanical harvesting, could also harvest one day earlier with the machine. He will then produce fewer kilograms of course, but of a better quality, which, however, should bring a higher price.

Another fact is that the Western German market evidently wants 25 to 30 million kilograms of canned, sliced mushrooms at a relatively low price. With our growing technique and way of mechanical harvesting we are able to supply this quantity at a competitive price and at the same time make some profit.

Profitability

The production costs in the Netherlands are determined by three major items:

1. The cost of labour, which is about 40% of the total.

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2. The cost of premises and equipment, 25%.
3. The cost of compost, about 12%.

Consequently the ideal method to attain a low cost of production would be:

- (a) As much mechanization and automation as practicable; especially for harvesting.
- (b) Maximum growing surface per room and a rapid rotation of crops.
- (c) Growing on medium depth layers of compost, to reach high yields per ton.

On consistently following these aims one automatically reaches something like 'a compartment system with movable bed sections', especially if it is a matter of producing good quality

mushrooms for preservation for the lowest possible cost.

To keep an enterprise profitable, it is necessary to hold the costs as low as possible. That is, use all facilities as little as possible; a minimum of basic materials, less labour, and less energy. But remember, there is one exception: the more modern and the more sophisticated a farm is, the more knowledge and experience is needed. Again a well-trained staff and good management are the very first conditions to make a growing system successful and an enterprise profitable. So the best advice I can give is 'Don't first invest in a system; but first of all invest in applied research, education, and training!'

Don't forget to make a nomination for the Sinden Award. See page 5

Never mind the width . . .

This week I saw some very decent mushrooms in our local greengrocers.

That should not be news, but unfortunately it is a rare event, and I still have the habit, developed during 37 years, of looking at mushrooms in shops when I can, at least once a week.

Lip service is paid to the pursuit of quality, but not enough is done. These good ones, from Knights of Hailsham, showed that it can be done. All too often they are poor, and to an experienced eye, could never have been much better, although the greengrocers often do not help.

So what can be done?

MGA shows no signs of making a positive constructive effort to improve quality.

I have discussed this subject with several ex-Chairmen of the MGA. One suggestion was that some spawn strains chosen for high yield are most liable to give fragile, early-opening mushrooms with a short shelf-life.

Perhaps spawn-makers, R and D, and growers themselves, could take a closer look at this question. Is a larger output of rubbish worthwhile, particularly in summer?

Picking closed mushrooms certainly helps, at any size; that depends on training pickers —

having decided on the best picking policy to maintain quality.

Could GCRI and Lee Valley make some record of a quality index — average weight, % open at picking, and a day later, etc.? They could compare this with two important, generally recorded data, spawn strain and cropping environment. Or growers might do a quality assessment on their own crops.

It is all additional work, but you don't get 'owt for nowt'. The Dutch Experimental Station is to concentrate on improving quality for the next few years. Anyone who looks at mushrooms in shops in France will see that it can be done.

I think the economic urge to get weekly flushes and avoid weekend picking has much to answer for, calling as it does for higher cropping temperatures to speed up growth.

Pre-packs and other direct sales take much of the better quality mushrooms but they also are sometimes below a reasonable standard.

If serious competition from imports should develop, a large proportion of British mushrooms may be among the losers.

R. L. Edwards

THE BUSH TELEGRAPH

JANUARY 1983

Chairman's Card

TOP LAYER: H. J. Linfield.

MIDDLE LAYER (from left to right): Raymond Thompson, Charles Spencer, H. J. Barton, D. B. Stanley-Evans, Joan Barton, John Lockwood, Guy Gooding, and Jim Dicks.

BOTTOM LAYER: D. N. Locke, P. J. Middlebrook, G. J. Ganney, Dr Fred Hayes, T. Figgis, W. R. Alderton, and Ferd and Sylvia Hensby as the growers responsible for producing this strange looking flush!

Book Review

TROPICAL MUSHROOMS — Biological Nature and Cultivation Methods. Edited by S. T. CHANG and T. H. QUIMIO. The Chinese University Press, Hong Kong. (1982). pp. 493. ISBN 962 201 264 7.

This book arose from the Regional Workshop on the Cultivation of Edible Mushrooms in the Tropics which was held in Manila in March 1980 and covers primarily edible mushroom cultivation

in tropical South-East Asia. For convenient reading the editors have divided the chapters into five sections.

The first section is concerned with general aspects. It covers such topics as Genetics and Breeding, Spawn, Substrates Preservation and uniquely Methods of Chemical Analysis. The Straw mushroom, *Volvariella volvacea* is comprehensively covered in the second section, while *Pleurotus* and *Auricularia* species receive similar treatment in the third and fourth sections, respectively. Section five on Other Aspects, contains two interesting chapters on Mushrooms Cultivated by Termites and the Prospects for Mushroom Protein in Developing Countries.

In all, twenty-three authors have contributed to the total of twenty-five chapters and not surprisingly, there is some repetition from chapter to chapter. This only detracts when the information given is contradictory.

The book is comprehensively indexed and will serve as a useful reference text for researchers and students of these tropical mushrooms. Especially

1983 Study Tour

There have been a number of requests to arrange a Study Tour during the month of May to the mushroom growing area of Northern Italy, based on Venice.

The tour would be over five days, from Saturday 14th until the following Wednesday 18th May, inclusive. We anticipate visiting at least four of the major growers in that area.

Whilst at this stage we are unable to give you a firm price, we would estimate it would be somewhere about £280 per person.

If you are interested, please drop the editor a line straight away.

PROVISIONAL PROGRAMME

Saturday, 14th May	Flight London-Venice (a.m.). Evening at leisure.
Sunday, 15th May	A day excursion to Venice or day at leisure.
Monday, 16th May	Visit two farms in the area. Evening at leisure.
Tuesday, 17th May	Visit two farms. Evening at leisure.
Wednesday, 18th May	Morning — shopping. Afternoon — flight to London.

pleasing is the emphasis given, in many of the chapters, to the value of mushrooms as a food.

There are, however, some important omissions. In my view *Agaricus bitorquis* is a species which may be cultivated in some tropical countries. Similarly, *Calocybe indica* — an outstandingly good tropical species — is certainly worthy of more coverage than a scant reference in one sentence. Also an economic appraisal of cultivating mushrooms in the tropics would be immensely useful to prospective cultivators.

Overall, I consider this book to be more useful to scientists than to practical cultivators, but it will, I am sure, appeal to a broader spectrum of readers who have a general interest in mushrooms.

Dr W. A. Hayes

... Directors of SpawnMate UK Limited, are to be R. A. Moore, Chairman; R. A. Rucklidge, Managing; B. Miroyan, and M. J. Barton. All are well known to mushroom growers throughout the world. From the USA, Bob Moore is the Chief Executive of SpawnMate, Inc., and Bernita Miroyan, also from the States, is the widow of Vartkes Miroyan who was an informed and respected member of the mushroom-growing fraternity. From the UK comes Dick Rucklidge, who brings a wealth of experience to the position of Managing Director, and the fourth member of the board is Michael Barton of Winterpick Mushrooms Limited.

Letters to the Editor

Salliota Ltd
The Causeway, Sidlesham
Chichester, W. Sussex

Dear Sir,

I would like to take this opportunity of showing my appreciation to the many people who either at Harrogate or subsequently by letter, have said how much they enjoyed our annual conference.

As people have said, a lot of effort goes into producing as good a programme as we can devise, which is not easy when trying to please most of the people most of the time.

With regard to the cost of the conference, which has been mentioned on one or two occasions, particularly in this *Journal*, every effort is made to keep this as low as possible without spoiling the

job. We do feel, however, that at £32 for a full delegate ticket, the cost compares very favourably with other comparable conferences whose charges in many cases exceed this sum for a single day.

Whilst writing, if any of your readers have ideas as to what or who they would like to hear at next year's conference, I would be delighted to hear from them.

Yours sincerely

B. Howes

Conference Chairman

Melbourne Mushrooms Pty Ltd
Coores Road,
Mernda, Vic., 3754
Australia

Dear Sir,

I have recently returned to Australia after a most enjoyable trip back to the United Kingdom.

We tend to get a bit isolated from current trends and ideas and it is inevitably worth the time and effort to make the trip up to the Northern hemisphere. This trip was no exception and I would like to thank all those people associated with the industry whose brains I have picked and teased and whose hospitality and friendship I have enjoyed. I trust that our discussions were mutually beneficial. It was comforting to know that our problems are not unique and that our ideas for the future are shared by others. I look forward to my next trip.

Again, many thanks.

Yours sincerely

Andy Gulliver

Hausser Champignonkulturen AG
Gossau-Zürich
Switzerland

Dear Denis,

What a surprise! What a thrilling, happy surprise came in my mail this morning! How can I express my appreciation for the birthday best wishes signed by my friends at your meeting in Harrogate. All I can say is, humbly, thank you to one and all whose names were thereon.

You did a good job of concealing from me your under-cover effort. I kept wondering how news of my impending anniversary was spreading. Now I know and would like to thank those who offered their congratulations in person. My attempt to keep secret my age and birthday was thwarted in

Australia five years ago and now again in your good country.

I hope that the Mushroom Growers' Association will be as flourishing as now when eighty years are behind it.

My sincere thanks to all of you who made my presence among you a thorough enjoyable occasion.

Sincerely

Jim Sinden

11 Apsley Way
Longthorpe
Peterborough PE3 6NE

Dear Sir,

The *Mushroom Journal* used to take pride in the accuracy of its terminology. But, in the November issue, No. 119, I see that Bacterial Blotch is associated with *Pseudomonas tolaassii* which is as odd as the *P. tolasii* given in the current *Annual Report 1981* from Loughgall.

We used to conform to standard practice and write *P. tolaasi* but the name came under review recently, so I consulted Tom Preece. He told me: 'No-one is doubting that Paine called it *Pseudomonas tolaasi* (after Tolaas), but in 1976 the International Code of Nomenclature decided that to personalise names ending with a consonant (other than -er) one should add -ii if the person was/is male and -ae if the person was/is female. Thus Tolaas becomes tolaas + ii = *tolasii*'.

And so it has come about that the Approved List of the *International Journal of the Systematics of Bacteria* (1980), Vol. 30 (1), gives *P. tolaassii* Paine 1919. This decision operates from January 1980.

Yours critically,

F. C. Atkins, O.B.E.

Sorry! a regrettable proofreading slip!

... Significant cost savings are already evident down on the farm for one of Britain's major mushroom producers who has recently taken delivery of two dual purpose Ampliroll 160/30 tonne vehicle handling units.

Country Kitchen Foods Limited — which maintains the largest surface mushroom production unit in Europe at Langford in Avon — need to dispose of several hundred tons of spent compost each week.

This compost, still rich in organic nutrients, used to be delivered to agricultural customers for re-use, in a fleet of rigid fixed-bodied tipping lorries. Now the versatile high capacity eight-wheel Ampliroll vehicle handling system, manufactured by Hearncrest Boughton, has taken over and demountable bodies can be filled with compost, without interruption, around the clock, if necessary.

... After 26 years' service Mr K. G. M. Pointing will retire from Blue Prince Mushrooms on 28th February 1983.

Mr Pointing joined Agaric Limited (now Blue Prince Mushrooms, Bradford-on-Avon) as managing director in 1956 and came into the Darlington Group when the Bradford-on-Avon farm was purchased in 1970.

Mr Pointing has held several senior management positions and has become a well-known figure in both the United Kingdom mushroom industry and, through his time with Darmycel Technical Services, the international mushroom scene. Mr Pointing also served for a year as Chairman of the Mushroom Growers' Association.



... In October, at the invitation of the Dept of Agriculture, Bernard Roscoe went to Armagh in Northern Ireland for two days to discuss the mushroom-picking courses currently being operated by the East Anglian Mushroom Growers' Training Group.

On arrival, he had informal discussions with Messrs Brian Gibson, Commercial Development Officer; Roger Jones, Specialist Mushroom Adviser; Tom McAlister, Horticultural Training

Specialists; Sam English, their marketing officer based in Cheshire, and other interested officials.

After a 1½ hours talk to fifteen growers, the above officials and Mr Crosbie Cochrane, Chief Horticultural Officer to the Department in the afternoon, Bernard Roscoe carried out a shortened picking course at the nearby bag farm of Mr Malachy Kernan, and later in the evening recorded a short talk on the subject for transmission by the BBC the next night. The following morning was taken up by a full course for nineteen pickers at Messrs Francis McArdle & Sons at Reen, Middletown. This practical exercise was particularly valuable in that it highlighted the other aspects of picking efficiency, apart from economy of effort in the picking movement, such as equipment in the shed, the care of beds, and accuracy of grading. The collective purchase of video equipment by the larger growers to make training films, was suggested and supported.

This short but concentrated distillation of the experience that the East Anglian Mushroom Growers' Training Group, supported by the Agricultural Training Board, has gained these recent months, left the host officials with many new ideas on which to base their future strategy.

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