

UK CONTROLLED ENVIRONMENT USERS' GROUP
MINUTES OF THE 2007 ANNUAL GENERAL MEETING

The annual general meeting of the Controlled Environment Users' Group was held on Tuesday the 11th of September at Brynamlwg, University of Wales, Aberystwyth.

The UK CEUG Chairman, L.D. Incoll opened the meeting at 21.05 h.

Present: S. Andrews, C. Armstrong, L. Benjamin, M. Buchholz, D. Clark, M. Cotton, R. Darby, J. Franklin, M. Fuller, P. Gill, L. Hansen, M. Hibbert, G. Holmes-Henderson, G. Holroyd, M. Hughes, L. Incoll (in the chair), M. Lappage, B. Lockyer, A. Morgan, R. Natt, A. Padfield, I. Pearman, G. Pitkin, M. Pratt, M. Richardson, B. Robertson, S. Robertson, K. Sawford, A. Sim, D. Skelton, G. Taylor, C. Tilley, E. van Echtelt, G. Waimann, A. Williams.

Apologies: C. Fryers, E. Fryers, W. Meredith, N. Macrae, B. Trotter

2. Minutes of the previous meeting at Royal Holloway, University of London, on the 12th September 2006.

The minutes of the previous meeting, which had been distributed to members earlier in the year, were approved as a true record of the proceedings (proposed G. Pitkin, Scottish Crop Research Institute; seconded I. Pearman, Rothamsted Research). The minutes were approved unanimously.

3. Matters Arising.

There were no other matters arising that did not appear on the agenda.

4. Chairman's Report (L.D. Incoll, University of Leeds)

I completed my report last year half way through the 2006 annual scientific meeting. We were eagerly anticipating a morning at the Ecotron at Imperial College at Silwood Park - our first visit so many years after first hearing about it from Richard Woodfin. Not a moment too soon as, unbelievably, the future of this unique research facility was and remains uncertain. That scientific politics seems determined to destroy this world class controlled environment facility with its highly talented support staff beggars belief. Our expectations were rewarded by an excellent and fascinating tour of their range of facilities led by D. Wildman and C. Denham.

Communications

1. 'UK-CEUG' JISCmail List

There has been less activity in the last year with about the same number of informative messages from the Executive Committee (22) but fewer messages from members (20) seeking help by asking questions that in some cases generated significant discussion. Five subjects were discussed ranging from 'greenhouse containment' to 'growing potatoes'.

2. Website

I was able to find time to teach myself how to use the web software (Macromedia Contribute 3) and have consequently extensively edited the web site and brought it up to date. The following new pages have been added:

- a) 'About the UK CEUG' translated into German 'Informationen zur UK CEUG' by E. Fryars and into Spanish 'Informacion acerca del UK CEUG' by M. Giménez-Moolhuijzen
- b) About past and future meetings
 - 2007 Aberystwyth
 - 2008 Dundee
 - 2008 Florida - now linked to a new NCERA-101 web page about the meeting
- c) Minutes of the Annual General and Discussion Meetings
 - 2005 (view on screen or download)
 - 2006 (view on screen or download)
- d) Proceedings of the Scientific Meetings
 - 2005 (view on screen or download)
 - 2006 (view on screen or download)

I have developed a new arrangement for the *Proceedings of the UK Controlled Environment Users' Group*. First there is a contents page for each year followed separately by the full proceedings which also contain the contents page as the first page. This new arrangement is almost complete for each of the last ten years. Each year's proceedings now has a volume number and L. Incoll is identified as editor in the footer. (The proceedings date from Volume 1 in 1990)

- e) Membership - in Español (translated by M. Giménez-Moolhuijzen), Deutsch (translated by E. Fryars), and Francaise (translated by J. Boccon-Gibod)
- f) Travel bursary application for Florida 2008 meeting
- g) International Committee for Controlled Environment Guidelines
- h) Measuring and Reporting Environmental Parameters for Experiments on Plants in Growth Rooms and Chambers
- i) Submissions to consultations
 - HSE/Defra consultation on the redrafted SAGCM Compendium of Guidance, Part 4 on GM plants/plant pathogens/containment

Publications

1. Recruitment poster

G. Pitkin (SCRI) and the SCRI graphic artist have designed the first draft of a full-sized poster (<CEUG-poster.pdf>) based on elements of the recruitment leaflet (English version). The intention is that it should be available for display at scientific meetings other than our own. Graham will be keen to have your comments on the poster.

2. CE Guidelines for tissue culture facilities

Since last September the draft guidelines have evolved into 'a very different creature' through the continuing work of S. Millam (chairman, sub-committee on Tissue Culture Guidelines), P. Austin (New Zealand), myself and the International

Committee on CE Guidelines (ICCEG). The TC guidelines now contain an explanatory diagram and an example of a report. The very different second draft was discussed by NCERA-101's 2007 annual meeting in spring this year and has been circulated recently to members of the UK CEUG for their input. It is important that you comment on the guidelines so that we end up publishing a useful set of guidelines for tissue culture practitioners. The sub-committee had some difficulty in obtaining good photographs for the frontispiece of the leaflet and would appreciate any help that members can give in sourcing better ones. Once we have your approval the guidelines will be prepared for publication by Paul Austin in New Zealand to be ready for release at the 2008 International Conference on Controlled Environment Agriculture in Florida next spring. The ICCEG sub-committee hopes to develop a small poster for display in CE facilities similar to the small poster that was developed for the 'Minimum Guidelines'. The CEUG plans to distribute copies of the leaflet and the small poster to interested members.

Membership

Since September 2006

| Category | Number |
|--|--------|
| New members | 14 |
| Members resigned or removed | 11 |
| Net change | +3 |
| Current total | 170 |
| No E-mail contact – <uk-ceug> JISCMail group (no e-mail address or unsubscribed) | 5 |
| Attended the 2006 meeting (not all were members) | 45 |
| Overseas recruitment: | |
| Australia - joined | 1 |
| Bangladesh- joined | 1 |
| Germany – joined | 0 |
| France – joined | 0 |
| Poland – joined | 1 |
| Spain – joined | 1 |

There has been a small net increase in membership this year which again conceals an impressive number of new members offset by a number of resignations, deletions and retirements. In the 10 years since 1998 the membership has increased 33% from 126 to 170 with that net increase concealing recruitment of over 150 new members. The need for continuing recruitment is evident and Executive Committee member Malcolm Pratt is looking into recruitment for us.

Future Meetings

Next year our North American colleagues are organising the third international meeting on controlled environments on the subject of "Controlled Environment

Agriculture" hosted by the Kennedy Space Centre in March. The Executive Committee awarded 10 travel bursaries to members who plan to take an active part in the conference by presenting spoken or poster papers and a JISCMail mailing list has been established to enable delegates to interact before the meeting.

A workshop on "Water and its measurement in CEs" is being organised at Dundee in 2008.

We have some firm offers from members to host future meetings. For 2009, J. Franklin has proposed a meeting at Rothamsted Research on the subject of "CEs and containment" and for 2010, M. Stenning has proposed a meeting at the University of Sussex and the Millennium Seed Bank on "CEs and conservation".

Light Sensor Calibration Package

This development phase of this project is now close to completion. C. Denham (Imperial College at Silwood Park) made a levelling stand to hold three standard sensors and the member's sensor and a reference rig for calibrating the three standard sensors against a reference standard. B. Trotter wrote an instruction manual. The sensors and meter have been purchased from Skye Instruments Ltd. Because of the uncertainty about the future of the Ecotron and its staff, Julian Franklin and I. Pearman (Rothamsted Research) agreed to take over the responsibility for the package from Silwood Park. The package was demonstrated today at the Trade Exhibition and they will report on it later in the meeting.

I. Pearman and J. Franklin have agreed to prepare a web page explaining the instrument package and its rental and also to provide a downloadable rental form and agreement for the borrower to sign.

Finally I wish to express my gratitude to the Executive Committee members for their continuing support of me and the UK CEUG and in particular to the individuals whose names I have mentioned above and whose involvement in Group affairs will be apparent in the proceedings of the annual general meeting. I particular I value the support of our secretary, J. Franklin and of the treasurer, P. Gill and the Financial Sub-committee of Alan Morgan, Garry Taylor and Graham Pitkin whose recruitment of sponsors and trade exhibitors enables us to finance many of the activities that I have mentioned above. Of course we are grateful to our sponsors who have increased from 10 to 12 this year, and to trade exhibitors for that support. Finally I should mention our two new specialist advisors - Lawrence Benjamin (quality assurance) and George Waimann (refrigeration) who have willingly taken on those roles.

5. Secretary's Report (J. Franklin, Rothamsted Research)

During the last year the Executive Committee has met twice at Rothamsted. Much of the business of the committee is conducted via emails, however the Executive Committee aims to meet at least once a year to resolve the details of the annual meeting as well as to progress the business of the group. The group is grateful to Rothamsted Research for provision of its facilities for meetings.

Much of the business of the Executive Committee is focussed on the annual meeting and the planning of future meetings. At our last meeting in June apart from finalising details for this meeting we were firming up the details of next year's meeting in Dundee as well planning the 2009 meeting at Rothamsted.

During the year the secretary completed the annual return to the Charity Commission. This is an annual return, completed on-line soon after the annual general meeting.

The secretary now holds the archives for the group including instruments donated to the group by the University of Leeds. The latter may be of historical importance but are functional and quite accurate. A comprehensive list will be available on the UK CEUG's website in the near future.

The group responded to the request for comment on the latest draft on the guidelines of containment of genetically modified organisms. The group received a response thanking it for its comments prior to release of these guidelines.

As Secretary I would again like thank L. Incoll for all the work he does as chairman of the group. This includes most of the 'secretarial' work for which I am grateful.

The report was approved unanimously (proposed G. Holmes-Henderson, Syngenta Ltd; seconded A. Morgan, University of Warwick).

M. Fuller (University of Plymouth) proposed a vote of thanks, seconded by G Taylor (Weiss Gallenkamp Ltd), to Rothamsted Research for allowing the UK CEUG to use its facilities for Executive Committee meetings and for its hospitality.

6. Treasurer's Report for the financial year 2006/2007 (P. Gill, SCRI)

The Treasurer presented his report for the financial year 1st August 2006 to 31st July 2007 (Annexe A). Expenditure (£5,179.64) exceeded income (£3,746.35) by £1445.64. This was largely due to the purchase of instruments from Skye Instruments Ltd for the Light Sensor Calibration Package (£1391.79). The credit balance at the end of the financial year was £7,028.63.

As a charity, the Trustees (the Executive Committee) are expected to meet at least twice a year; costs of these meetings vary with travel costs. Such costs have been slightly higher this year (Annexe B).

There was a surplus of £179.90 from the 2006 Silwood Park meeting (Annexe C). Note that income from Trade Stands now goes into, and expenditure on speakers and for the AGM comes from, central funds.

These accounts are audited externally annually.

The report was approved unanimously (proposed G. Holroyd, Lancaster University; seconded J. Franklin, Rothamsted Research).

7. Election of the Committee

There were two nominations for the committee this year. Nominations closed on the 28th August 2007. As the nominations were unopposed, the nominees were therefore duly elected.

| Position | Person | Proposed | Seconded |
|-----------|-----------------------------------|-------------|------------|
| Chairman | L. Incoll (University of Leeds) | J. Franklin | I. Pearman |
| Secretary | J. Franklin (Rothamsted Research) | P. Gill | A. Thain |

8. Future Meetings

See table below for scheduled meetings to 2010 and provisional plans after 2010.

a) International meeting at the Kennedy Space Centre, Florida, March 2008
Information relating to this meeting was covered in the Chairman's report.

b) Workshop on "Water and its measurement in Controlled Environments", Dundee, Autumn 2008 (P. Gill & G. Pitkin, SCRI, Dundee)

P. Gill reported that organisation is going well. The workshop will run from Sunday afternoon until Wednesday lunchtime. It is planned to have three morning lecture sessions using the University conference centre's facilities. Accommodation will be in new University en-suite accommodation. There will be two afternoon sessions involving a bus trip to SCRI. So far nine manufacturers have agreed to set up displays including equipment for measuring water vapour and soil moisture. Guest speakers have been invited including Gaylon Campbell (Decagon), Jean Caron (Université d'Laval), Chris Atkinson (East Malling Research) and Paul Hallett (SCRI). Stephanie Bell (NPL) and Lyn Jones (University of Dundee) have already agreed to speak.

The conference dinner on the Tuesday night will be held at the 'Discovery Point' Centre. A small sub-committee has been formed to help arrange practical sessions and it is hoped that that the Dundee and Angus Tourist Board will provide assistance with some costs.

P. Gill advised the meeting that places were strictly limited to 50 and advised people to book early. He is aware that Dundee may seem a long way for some people to travel but assured people that Scotland is much more accessible now and encouraged people to arrive early to make the most of what the area can offer. It is hoped to provide a museum trip to those who arrive early on Sunday afternoon.

L. Incoll added that there was good representation from manufacturers who will bring equipment for atmospheric water vapour calibration and measurement. Practical sessions will allow delegates to compare readings from their own equipment with those from manufacturers and will also involve pots of media with equilibrated soil moisture sensors in them. Suggestions for practical sessions were invited from the meeting.

A show of hands indicated that there was a good interest in attending the meeting although members did suggest that cost and distance could be an issue when deciding whether to attend.

P. Gill agreed that travel on a Sunday could be problematic but assured members that he could arrange collection of delegates from Edinburgh airport and encouraged those who wished to attend to book transport early as this is often less expensive.

Schedule of future meetings - scheduled and provisional

| Date | Venue | Comments |
|-------------|---|--|
| 2008 | Kennedy Space Center, Florida - March | <i>International Controlled Environment Conference. Theme: "Controlled Environment Agriculture". Host: Gary Stutte</i> |
| 2008 | SCRI, Dundee - September | Workshop. Theme: "Water and its measurement in CEs" (will be 11 years since last visit). Organisers: Peter Gill and Graham Pitkin |
| 2009 | Rothamsted Research | Theme: "CEs for containment". (will be 11 years since last visit) Organiser: Julian Franklin |
| 2010 | University of Sussex | Theme: "CEs for conservation". New site Organiser: Martyn Stenning |
| 2011 | York University / CSL or University of Sheffield | (will be 12 years since last visit) New site |
| 2012 | <i>September (second week), University of Cambridge</i> | <i>International Controlled Environment Conference. Theme: "?"</i> |
| 2013 | John Innes Centre, Norwich | (will be 12 years since last visit) |
| 2014 | Syngenta, Jealott's Hill | (will be 12 years since last visit) |
| 2015 | University of Lancaster | (will be 12 years since last visit) |
| 2016 | Fiftieth Anniversary Meeting | |

c) Annual Meeting on "CE's for containment", Rothamsted, 2009 (J. Franklin, Rothamsted Research).

J. Franklin outlined plans for the 2009 meeting. As usual this would be an overnight meeting and as there is no student accommodation nearby he has looked into using local hotels with conference facilities. Initial enquiries have indicated that costs will be around £140-160 per delegate. Transport will be needed to go between sites and he is looking at the costs of staying nearer to the Rothamsted facility. It is hoped that all delegates will be accommodated in the same hotel but this cannot be confirmed at this

stage. He asked the meeting if £160 was a suitable amount for delegates to pay for accommodation and subsistence and received no objections.

L. Incoll asked that anyone with ideas for speakers to get in touch and J. Franklin reminded delegates to keep in touch with ideas and comments via email or to see him following the meeting.

d) Annual Meeting on “CE’s for conservation”, University of Sussex, 2010 (M. Stenning).

L. Incoll outlined the plans so far for this overnight meeting on behalf of M. Stenning. Afternoon scientific sessions will concentrate on the use of controlled environments for conservation research. It is planned to visit the Millennium Seed Bank, Wakehurst Place, on the following morning. This will involve a drive of about one hour from the University of Sussex to Wakehurst Place following the morning sessions. A. Morgan observed that he has visited the site and it is well worth the drive. Delegates will disperse from Wakehurst Place rather than returning to Brighton at the end of the meeting. L. Incoll anticipates some problems in organising trade displays.

e) Post-2010 meetings

Apart from the 2012 International meeting at Cambridge, these meetings were provisional and no firm decisions had been made about them

9. Light sensor calibration package (J. Franklin and I. Pearman)

J. Franklin (Rothamsted Research) reported that this package is nearly ready to be used. It is hoped to have a booking and payment form on the web page by 1st October 2007 and that the package will be ready to send out. It will be available in 2-3 week slots at a cost of around £80 which includes postage/travel time. The £80 fee does not include return postage which will have to be met by those hiring the package. He noted that this package is available as a loan to members enabling them to calibrate one or more light meters at their institution or to measure light in CE facilities. Those using it will have to sign to say that they are responsible for it while it is in their care. After each loan the package will be calibrated. He noted that this was not a profit making exercise and that the fee includes covering maintenance and repair costs over time.

Members will be notified when the package becomes available and it is hoped that an availability diary will be available on the website. Delivery by a given date cannot be guaranteed and J. Franklin and I. Pearman are currently looking at whether to have a late return fee.

I. Pearman (Rothamsted Research) urged members to use the equipment and noted that he was surprised how much his own light meters were out when he used the calibration package himself.

Payment will be made in a similar way to that for conferences, i.e. by filling in a form and sending the payment by cheque or bank transfer.

L. Incoll expressed his gratitude to B. Trotter for the work she had put into preparing the manual and help sheets. The manual is extremely easy to use. He also expressed

gratitude to J. Franklin and I. Pearman, for taking over this project following the uncertainty about the future of our members at the Imperial College Ecotron who had previously agreed to manage the package.

10. Open discussion of CE topics

Given the limited discussion time during the scientific session, it was agreed that the current session would be a good opportunity for the guest speakers to comment and respond to questions about their presentations.

A. Padfield (Unigro) noted that one aspect of the annual meeting was that it could be a forum for 'weird and wacky' suggestions and that JISCmail was also a place where users could express their opinions about technological ideas from manufacturers.

G. Waimann (Rothamsted Research) instigated a discussion on the use of HFCs in refrigeration and noted that their use need not always be 'doom and gloom' - he was not intending to be scaremongering as existing systems would not be obsolete 'tomorrow'. His department is looking at alternative refrigerants but he believes that HFCs can still be considered in long term developments. P. Gill (SCRI) asked why sealed systems had gone out of fashion adding that it may have been because the compressors were expensive. G Waimann responded that there had been significant changes in technology from old systems using ammonia which was toxic and difficult to manage. CFCs (Freons) were easier to manage. He also discussed CO₂ systems which are now used in some supermarkets such as Tesco and ASDA. CO₂ can be subcritical and transcritical and, in refrigeration systems, go critical quicker than other systems. He explained that transcritical relates to the characteristics of CO₂ when cooled. It operates at high pressures e.g. 60 bar at 20°C and 71 bar at 30°C. Other refrigerants in comparison work at pressures of 15 bar at 30°C. Given the high temperatures and pressures, pipes in the system must be stronger. This was not a problem because high pressure systems already existed for compressed gases and for hydraulic systems. There are concerns that there is a risk of suffocation when using the CO₂ systems and, when fitted, adequate ventilation must be maintained and alarm sensors fitted. Some ventilation systems have CO₂ sensors in order to control fresh air exchange.

M. Buchholz (Technische Universitaet, Berlin) posed the question of whether we have to have sustainable systems. Although energy costs might need to be reduced there might be other aspects of the system where sustainability is more important. He cited "ecobalancing" software which could be used to decide what was important in a facility and in a production system within it. He suggested organisations look at systems in context and consider all aspects of nutrients, heating and cooling to get the feel of which energy saving measures are the most important.

G. Waimann (Rothamsted Research) noted that lots of technologies for refrigeration are being researched but users are not tending to move away from compression systems and although he thinks there must be another way this is not likely to be developed 'tomorrow'. New systems must be sustainable and buyers do not want them to become obsolete in a few years time.

The following general discussion agreed that most decisions are driven by budget rather than energy saving measures. L. Incoll (University of Leeds) suggested that sustainability was the right way to tackle the problem but the purchase of new equipment tends to be driven by budget and approaching via sustainability might require setting new priorities in the way that M. Buchholz had suggested. J. Franklin (Rothamsted Research) noted that when purchasing new equipment within a budget, running costs are considered but they are not a high priority. BBSRC need justification when not buying the cheapest piece of equipment and there is no pressure to buy to the 'greenest' specification. There is a new policy at his institution to only buy 'A' energy rated products even if 'B' rated ones work out cheaper over the long term. A. Padfield (Unigro) noted that money saved from using less energy is not added back into the budget so whilst many may like to use less energy there is no incentive to do so. S. Andrews (JIC, Norwich) informed the meeting that money is available as a grant from BBSRC for energy efficient projects to cover the extra cost for 'green' installations but J. Franklin observed that this is available as a three year pay back scheme (currently suspended) and it should be applied for once equipment is in place and cannot be included in an initial grant bid. G. Waimann responded by informing the group that in his experience you would be required to demonstrate following installation that a projected saving had occurred or the money would need to be refunded. A. Padfield suggested that grant providers should be lobbied to take green measures into account as a matter of policy. It was agreed that unless there was financial motivation or a change in legislation, there would be no incentive to change and organisations would purchase equipment influenced by budget.

L. Incoll (University of Leeds) asked M. Buchholz for his views on energy saving. He suggested that people should look at alternative solutions to problems e.g. rather than wasting energy by cooling one area of a building and independently heating another, instead they should try to transfer the waste heat from the cooling system to where it is needed. He gave examples of greenhouses which are hot during the day and cold at night and suggested looking to using a heat exchange system where excess heat during the day could be stored and used to heat the greenhouse at night. Similarly supplementary lighting should only be used when the supplementation is needed and not run all the time. This also applies to computer rooms which must have a cooling system. This excess energy should then be used to heat a room requiring heating rather than expending energy to heat the room and losing the excess energy from the cooling system to waste. G. Waimann (Rothamsted Research) also suggested that CO₂ could be used as an alternative to water in cooling systems. J. Franklin (Rothamsted research) noted that computer managers will insist on having an environment controlled by air conditioning in a sealed system into which Halon can be released to put out fire. This approach rules out using 'free cooling'.

E. van Echtelt (Philips, Eindhoven) asked the meeting what their thoughts were on the use of LEDs. Could they be used as an energy saving measure or as a new option in research? G. Holroyd (University of Lancaster) noted that currently LEDs tend to be used as supplementary lighting and as a research tool for example when investigating the effects of different wavelengths on plant growth. G. Waimann (Rothamsted Research) remarked that LEDs age less quickly than conventional lamps whereas G. Holroyd responded that life time of LEDs depended on the way they were used and that attempts to increase light output can shorten the lifespan. I. Pearman (Rothamsted Research) noted that, according to M. Pratt (University of Leicester), one failure in a

set of LEDs will increase the load on other lamps in the system putting them at risk. Heat from the LEDs is also a problem, although less heat is emitted from the front of the lamp, more is discharged from the rear. G. Taylor (Weiss Gallenkamp) also noted that LED systems can be expensive and that these high capital costs need to be overcome before they could replace fluorescent lamps.

L. Incoll (University of Leeds) informed the meeting that Applied Optotech from Cork, Ireland, whose representative spoke at the 2004 workshop on light, have now folded which is disappointing. An impressive company, they had been looking at how different chemical composition in LED's emitters can affect wavelength. Their plots of light output/joule of LEDs showed similar values to fluorescents with predictions that higher outputs would be achievable. E. van Echtelt noted that demand for and specification of LED technology in horticulture is very different to that of humans for domestic and commercial lighting.

G. Taylor (Weiss Gallenkamp) asked E. van Echtelt (Philips) what the word 'recyclable' on their fluorescent lamps meant because he thought that crushed lamps were regarded as toxic waste and as such should be disposed of in land fill i.e. they should not be recycled. She did not know but undertook to find out - she knew for example that the 'burner' in HP sodium lamps was not recycled but the glass envelope was. G. Taylor remarked that even though a lamp might have passed into the hands of a licensed waste disposal agent, you as a user are responsible for its ultimate demise so you should know its fate. J. Franklin (Rothamsted Research) noted that any institution's waste officer should know what happens to this sort of waste. S. Andrews (John Innes Centre) said that under the terms of the WEEE directive electrical wholesalers were obliged to take back used lamps and dispose of them and experienced companies like Balcan Engineering were advertising that they were doing so.

11. Any other matters not included in the agenda items (including the Executive Officers' reports).

The chairman wished to record, on behalf of the group, his thanks to R. Darby and D. Emmett for organising the meeting in Aberystwyth and also to A. Cole for taking the minutes. He felt it had been a very successful and memorable meeting.

The meeting closed at 23.55 h.

Recorder: A. Cole
17/10/07

Annexe A

UK Controlled Environment Users' Group
Accounts for the financial year 1st August 2006 to 31st July 2007

Royal Bank of Scotland account, Dundee (10081698)

| | | |
|---|-----------|------------------|
| Balance b/f at 1 st August 2006 | | £8,474.27 |
| INCOME | | |
| 2006 Silwood Park conference | £3,028.23 | |
| Mailing sponsorship | £600.00 | |
| Bank interest | £105.77 | |
| | | £3,734.00 |
| EXPENDITURE | | |
| 2006 Silwood Park conference | £2,023.83 | |
| 2008 Dundee conference | £115.25 | |
| Mailshot | £194.61 | |
| Executive committee meeting expenses | £1,129.34 | |
| Light package | £1,391.79 | |
| Web development & computer software | £119.47 | |
| Office services (stationery, etc.) | £168.86 | |
| Equipment (hygrometer repair & poster tube) | £26.26 | |
| Treasurer's expenses (audit) | £10.23 | |
| | | £5,179.64 |
| Balance c/f at 31st July 2007 | | £7,028.63 |

Peter Gill & Graham Pitkin
3rd August 2007

Annexe B

UK Controlled Environment Users' Group
Accounts for the financial year 1st August 2006 to 31st July 2007

Cost of Executive Committee meetings

| | | |
|--|---------|------------------|
| Meeting held at Rothamsted Research on 2nd June 2006 | | |
| Travel | £115.20 | |
| | | £115.20 |
| Meeting held at Rothamsted Research on 29th January 2007 | | |
| Travel | £349.42 | |
| Accommodation | £120.00 | |
| | | £469.42 |
| Meeting held at Rothamsted Research on 4th July 2007 | | |
| Travel | £384.72 | |
| Accommodation | £160.00 | |
| | | £544.72 |
| Total | | £1,129.34 |

Peter Gill & Graham Pitkin
3rd August 2007

Annexe C

UK Controlled Environment Users' Group
Final financial statement for the Imperial College at RHUL/Silwood Park
meeting
12th-13th September 2006

| | |
|--|------------------|
| INCOME | |
| Registration Fees | £760.00 |
| Payments for accommodation and subsistence (delegates) | £3725.60 |
| Speakers' accommodation and subsistence (credit from Trade Exhibition) | £114.88 |
| Speaker's travel expenses (credit from Trade Exhibition) | £33.32 |
| AGM secretary - honorarium (credit from Central Funds) | £60.00 |
| | £4,693.80 |
| EXPENDITURE | |
| Initial circulation: printing | £50.12 |
| Photocopying | £23.50 |
| Committee expenses (Chairman's visit to Silwood Park) | £46.80 |
| Hire of 2 taxis and SU minibus | £58.80 |
| Lunches for tour guides and trade exhibitors | £94.20 |
| RHUL accommodation/residence charges | £3,675.12 |
| Silwood Park catering (lunches) | £353.25 |
| Speaker's travel expenses | £33.32 |
| AGM secretary - honorarium | £60.00 |
| Document bags / wallets | £91.03 |
| Lapel badges | £27.76 |
| | £4513.90 |
| <i>Breakdown of RHUL invoice</i> | |
| Refreshments - conference dinner | £281.85 |
| RHUL accommodation/residence charges (24-h rate) | £2,650.17 |
| RHUL charges (day delegate rate) | £249.19 |
| Tapas lunches (2 people) | £14.47 |
| RHUL supplement for banquet menu | 479.44 |
| | £3,675.12 |
| Balance | £179.90 |

Peter Gill & Graham Pitkin
6th September 2007