

SCRI - A history



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SCRI - A history

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The History of SCRI

The formation of SCRI and its progenitors, SPBS and SHRI

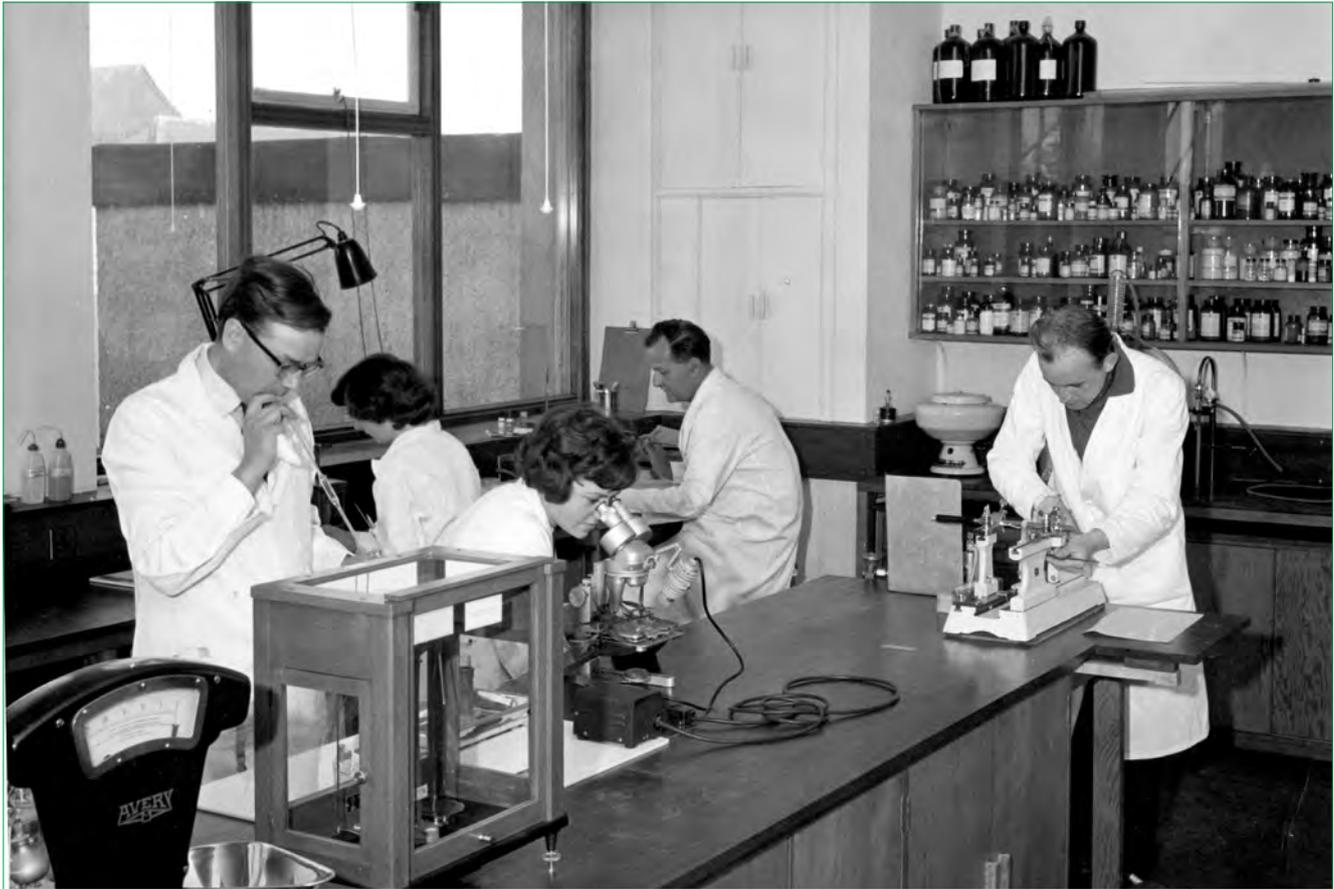
The years of the First World War brought a sharp wake up call to those in government of the United Kingdom. High among the problems were the poor housing and health for so many, resulting in a significant percentage of young men being unfit to join the armed forces. However, perhaps top of the list was the rapidly dawning awareness that the United Kingdom had become very dependent on the import of large amounts of raw materials from other parts of the world, both to sustain the war effort and to feed its native population. A policy of favouring cheap imports from the 1870s onwards had resulted in a dramatic reduction in the arable acreage of the United Kingdom. In the early years of the War it quickly became evident that a determined blockade by enemy forces could readily bring the country to its knees. Added to this was an awareness that the quality of plant varieties in agriculture and, in particular, their poor resistance to a range of pests and diseases, meant that the yields of home grown crops were very much lower than should be possible. In this respect at least, the United Kingdom lagged well behind countries in Europe and other parts of the world. In Germany, for example, a hundred acres of cultivated land fed from 70 to 75 people, while the same area in the United Kingdom fed only 45 to 50. The need for action was felt especially in Scotland, where the rural infrastructure had always played a very important part in the economy. The farmer and landowner members of the Highland and Agricultural Society for Scotland (HASS) were especially keen to see action and set up a committee to raise funds for the creation of a research station. This followed a HASS conference in 1917, which was addressed by Dr E. John Russell, Director of

Rothamsted, on the need for more agricultural research in Scotland, a meeting with the Secretary of the Board for Agriculture for Scotland in 1918 to discuss the remit of a potential research institute, then later in 1918, a HASS meeting chaired by the Secretary for Scotland, the Rt. Hon. Robert Munro, KC, MP, which agreed the establishment of the Institute, with the help of significant government financial support. Further information can be obtained from the Transactions of the Highland and Agricultural Society for Scotland (1).

By 1920, the committee, which subsequently became the Scottish Society for Research in Plant Breeding (SSRPB), had raised £22,500 which was matched pound for pound by the British Government. £45,000 may not seem a large sum of money, but at today's prices, was probably equivalent to £1.57 million based on the retail price index, and £6.08 million based on average earnings – in either case, a very substantial amount. The new Institute, with Montague Drummond as first Director of Research, was named the Scottish Plant Breeding Station, and initially was housed with the



East Craigs.



Laboratory at SHRI.

recently established Government Regulation and Seed Testing Station at East Craigs in Edinburgh.

It began work with a scientific staff of just two. The remit was to improve agricultural plants through selection in existing varieties, and the creation of new ones by hybridisation. A significant part of the remit was: to collect and classify suitable material, a forerunner of modern genebanks; to isolate pure lines to compare performance of these strains and varieties through objective trials in several locations; and, to use strains,

varieties and species in the creation of new, improved hybrids. Initially, these programmes were concentrated on barley, oats and potatoes, but very quickly, swedes, turnips, ryegrass, cocksfoot and timothy grass were added.

The programme of SPBS remained largely unchanged for the following 30 years, but during this period significant investments were made in additional buildings and glasshouses, the purchase of equipment, and the addition of staff. By the early 1950s, for a variety of reasons, not least of which was the perceived overly close relationship between an organisation tasked to produce new varieties and that established to test them officially, it was decided to move SPBS to a new site on the edge of the Pentland Hills, to be known as Pentlandfield, part of the Edinburgh Centre of Rural Economy on the Bush Estate.

It is of interest to note in the Minute of Agreement recording the transaction, that the value of lands and buildings at Craigs House attributable to SSRPB of



Pentlandfield.



Glasshouse at SPBS.

£12,500, was not to be paid by the Department of Agriculture and Food for Scotland (DAFS) to SSRPB, but was to be regarded as a further contribution by the Society to the new buildings at Pentlandfield. SSRPB's total financial contribution was £43,176, again a substantial sum at today's prices. The construction at Pentlandfield was deemed to be complete by 1960, but the 1970s saw further expansion in buildings, glasshouses and staff, with land being acquired at the Murray's farm in East Lothian. These years also saw a rationalisation of the research programmes with those of other government aided research institutes in the United Kingdom. Work on oats and grasses was discontinued, with useful breeding material transferred to the Welsh Plant Breeding Station (WPBS). A strong Chemistry Department was established to undertake analyses of factors in barley, brassicas and potatoes which were likely to be of commercial importance or harmful to animal and human health. By this stage, the number of staff had increased to 62 (1970). Staff numbers at SPBS had increased to 115 in 1981, just prior to the amalgamation with SHRI which itself had 151 staff at that time. Increasing emphasis was placed on the many fungal and viral diseases which affected

these crops. Clearly, much of the output of SPBS was on the production of new varieties, albeit supported by a wide range of scientific publications on breeding methodology, plant diseases and plant chemistry. A full list of the varieties is given in Appendix 2. Details of the scientific publications are available in the Annual Reports of SPBS and elsewhere in a range of scientific journals.

The other parent of SCRI, the Scottish Horticultural Research Institute (SHRI) came into existence in 1951, although legal ratification of the new entity was not achieved until 1953. This new Institute was itself a product of problems in commodity production which



Opening of SHRI.



Mylnefield farm.

to some extent had been highlighted by the problems of feeding an embattled and isolated country in the Second World War.

SHRI had two predecessors, the first of which was the Strawberry Investigation Unit which was established in 1930 at the West of Scotland College of Agriculture, Auchincruive, Ayr, at the instigation of the 1927 meeting of the Scottish Horticultural Advisory Committee, to investigate disease problems in the crop, initially in the major growing area in the Clyde valley. The other was the Raspberry Disease Investigation Unit based in Dundee, which was the Scottish offshoot of East Malling Research Station and was established in 1943 to investigate problems with virus disease in the crop. The Strawberry Investigation Unit had subsequently extended its work to the Tay and Strathmore valleys, where both strawberries and raspberries had occupied an important role from around 1900. The proposal to merge these two units emanated from a survey group chaired by Sir Edward Salisbury in 1944 to determine the research needs of the horticultural industry in the post war years, with a planned involvement in both soft fruit and vegetables. It was not long before the work of SHRI covered such diverse crops as tomatoes, carrots and lilies, in addition to that on strawberries and raspberries. SHRI operated initially from ground in West Park House and the building known as Vernonholme, the latter site more or less where the current University of Dundee Botanic Garden is located. Both of these facilities and laboratory space in the Departments of Botany and Zoology in University College, Dundee, were made available by the then Principal, Major General Wimberley. In this extended period of gestation, which

lasted from 1951 to 1953, much work continued on the sites of the two parent organisations. Dr T Swarbrick took up his duties as Director on 1 March 1951 but staff did not move to Mylnefield until 1953, when the new Institute was legally incorporated. Initially SHRI was housed in the old Mylnefield Estate farm house which is still in use today at the centre of SCRI's Administration Building. At that time the total number of staff was twelve. The formal opening of SHRI did not take place until 16 June 1956, by which time some glasshouse facilities had been built. A new block of timber frame glasshouses was created in 1957. Suitable land for trials was initially a problem, but the Scottish Department had acquired much of the land of the Mylnefield Estate in 1949 and this was leased to SHRI in the early 1950s. The adjoining farm of Bullion was acquired in 1954. The history of the Mylnefield Estate itself is of interest. Early records show that it was owned by the Mylne family who were closely related to the Master Masons to the King in the 17th century. The estate in these earlier times included the farms of Kingoodie, Mylnefield and East and West Pilmore. It was on the first of these, on the south west side of the estate, that the Kingoodie Quarry was established which was a source of stone, both for local building on the estate and for some of the more substantial buildings in and around Dundee.

The merger of SPBS with SHRI in 1981, 60 years after the formation of the former brought together in the new Institute (SCRI) a range of research programmes which were different in many ways but nonetheless had certain similarities as far as crop types were concerned. For example, SHRI had a significant programme on horticultural brassicas. This merger, including the

transfer of staff from Edinburgh to Dundee, began in 1981 and was not concluded until 1991. This time span was largely the result of having to construct new laboratory and crop handling buildings to house the work carried out by SPBS. There was also a need to acquire extra land to take on the additional field experimental requirements, both in and around Dundee and in other parts of Scotland to ensure the validity of research findings throughout the north of the United Kingdom.

Buildings

For those who had known SHRI back in the 1950s very little now remains which they would recognise, apart from the old farm house mentioned previously. The old steading, which included a wonderful old, stone-built, round barn, was swept away to make space for



Demolition of steading and round barn.

the new laboratory block opened by Lord Hughes of Hawkhill in July 1974. Following the merger of SPBS and SHRI, additional laboratory blocks were opened in July 1988 and May 1991 by Lord Sanderson of



Hughes Building



Lord Strathclyde opens laboratory block AF.

Bowden and Lord Strathclyde respectively. As the focus moved away from field research to that in the laboratory, old buildings previously used for crop handling were converted to laboratories and were opened by John Home Robertson MSP, MP in June 2000.



John Home Robertson and SCRI Director, John Hillman.

Most recently a combined glasshouse and laboratory facility to house the National Seed Store was opened by HRH The Princess Royal in June 2010.

At this time, plans are being considered for the construction of a controlled environment facility to investigate the effects of climate change.



HRH The Princess Royal and SCRI Director, Peter Gregory.



Glasshouse facilities

The glasshouses originally created at SHRI were small, largely timber-framed though with a few aluminium frame houses, most of which lacked either lighting or heating. Over a period of years these were gradually replaced by much larger houses with some degree of climate control, to which were subsequently added insect proofing, automatic irrigation, etc. As the complexity of the science undertaken at SCRI increased, there was a need to ensure that experiments would be free from outside contamination by, for example wild strains of fungi and viruses, or the escape of viruses being studied which were identical to those existing naturally in some years and locations, in the commercial crops of the area. To this end, high containment facilities were constructed which had the capability to operate at either positive or negative air pressures. All of these new facilities incorporated units for the preparation of composts and the propagation of plants to very high standards of hygiene. These facilities were and continue to be especially valuable for the Institute's work on the genetics of plants, where the government standards on avoiding the risk of accidental escape, etc. are exceptionally high.

Land

In order to carry out the expanded field experimental programme resulting from the enlarged Institute more land was needed and in 1983 the 80 ha Gourdie Farm, previously part of the Royal Liff Hospital facility, was made available to SCRI. However, it was always clear that, without total control over the use of this land, no long term development would be possible. Gradually, elements within the Scottish Government sought to sell off this land for development, so in 2008, SCRI acquired an area of land totalling around 117 ha at the Balruddery Farm and gave up the Gourdie site. This has allowed the creation of a new Centre for Sustainable Cropping. The overall goal of the Centre is to test whether or not potential solutions for sustainable agriculture, actually result in improved arable biodiversity, resilience, crop productivity and yield stability at a commercial, field-scale and in the long term. Scientists will be developing a sustainable cropping system that optimises inputs, yield, biodiversity and ecosystem processes, using crop varieties with traits for enhanced nutrient and water use efficiency, weed suppression, and pest and disease resistance. These varieties will be assessed for their performance as part of a sustainable cropping system. The Centre will provide a resource for cross-



Balruddery.

disciplinary collaboration and a demonstration site for knowledge transfer and exchange, including a resource for University undergraduate and postgraduate projects. The Centre will be part of a network of long-term experimental platforms throughout the UK and Europe.

Research Policy

The 1980s and 1990s saw a fundamental change to the way in which research was funded by the Government. Up till then, what has been referred to as the Haldane principle, had applied. In effect this trusted scientists to have an objective view of the knowledge required to pursue their own particular topic, and to consider both outcomes which would have short to medium term value and still allow for research into what would be termed 'curiosity-led' or 'blue skies' investigations. The 'blue skies' approach to research in earlier times can be evidenced by two pieces of work. The first was the creation of a hybrid between the radish, *Raphanus sativus*, and kale, *Brassica oleracea*. This was known as Raphanobrassica. Initially an object of genetic curiosity, this hybrid was subsequently shown to have a number of desirable characteristics, both as an animal forage and as a trap crop to rid contaminated ground of sugar beet eelworm.

The second was a similar curiosity about some of the accessions in the Commonwealth Potato Collection, many of which were not adapted to produce tubers



Raphanobrassica.

under European growing conditions. Moves to change some of these so that they would produce tubers, led in later years to the creation of a number of lines of *Solanum tuberosum* group phureja which have since been shown to have considerable commercial value. These possess different cooking characteristics and flavour, and are already establishing a significant place in the market.



Phureja potatoes.

Following several government reviews and subsequent reports by Barnes and Rothschild, certain fundamental principles were laid down. Perhaps the most significant of these was that all research should have specific objectives and be completed in a specific time frame. In addition, where there would be those who would derive financial benefit from the output of government institutes, then they should pay for the work undertaken. In a practical sense, this meant that the various crop levies paid by growers should make a significant financial contribution to the research. It also meant that outputs of value such as new cultivars and patents should not be retained and promoted by the Institute, but should be passed over to commercial organisations such as seed companies for them to develop and take to the market place. While the commercial risks of so doing would be carried by such companies, they would be the major financial beneficiaries in the event of success. One of the obvious downsides was the belief on the part of some scientists that, increasingly, research with a guaranteed outcome, would be undertaken.



Products of SCRI research.

It should also come as no surprise that the research institutes in general, and SCRI in particular, should be unwilling to hand over their intellectual property in this way, especially as there was no guarantee that future government funding would be maintained at the same level as in the past.

This situation was one of the reasons for the creation of Mylnefield Research Services (MRS) in 1989 (see below).

The 1990s saw the start of what can best be described as the 'size equals strength and efficiency' movement, with the creation of two new bodies one of which had both a presence at SCRI and the Institute as its parent body and the other which was physically based at SCRI. These were respectively Biomathematics and Statistics Scotland (BioSS), and CAROS International.

Biomathematics and Statistics Scotland (BioSS)

BioSS, so named in 1995, was the successor to the Scottish Agricultural Statistics Service (SASS), which in turn came from the amalgamation of statistical groups in the Scottish Agricultural Research Institutes (SARIs) and the former AFRC Unit of Statistics based at Edinburgh University. SASS had been established in 1987 to provide statistical and mathematical underpinning to the work of the five SARIs (the Scottish Crop, Hannah, Macaulay Land Use, Moredun and Rowett Research Institutes), the three Scottish Agricultural Colleges and the Agricultural Scientific Services of the Department of Agriculture and Fisheries for Scotland. The broad objectives were to contribute to research, consultancy and training in statistics and mathematics in support

of biological and related sciences, with the specific objectives of improving the quality and efficiency of the science, and providing a better understanding of biological systems, particularly in agriculture, food and the environment.

CAROS International

CAROS International Ltd was formed jointly by the five Scottish Agricultural and Biological Research Institutes and the Scottish Agricultural College, with the backing of Scottish Enterprise in 1992. The name CAROS is an acronym for Consortium of Agricultural Research Organisations in Scotland. The organisation's remit was to promote and market the international research, educational and consultancy expertise of the Scottish science base in agriculture and related disciplines. CAROS lacked the critical mass to be successful on so many different fronts and, following changes in the remits and funding of the six partners, was dissolved at the latter end of 1990s.

Governing Bodies

The role of the Governing Body has clearly changed quite dramatically from that originally set up to both oversee and manage SPBS in 1921, to that in existence today to ensure that the Institute satisfies all aspects of accountability for its activities whether these be in research, finance or health and safety. SCRI formerly a non-departmental public body has now changed to a charitable company limited by guarantee. Nevertheless, throughout the years from 1921 to today, a huge debt of gratitude is owed to the many committed individuals who have served on a succession of Governing Bodies. They did so without thought of personal gain or financial reward, in the process contributing vast amounts of time, personal experience, knowledge and dedication to the causes of agriculture and horticulture in Scotland. Many were by-words in their own professions or industries, and they provided an input ranging from the out and out practical crop production side to the very latest in scientific advances. They are owed a great debt of gratitude. A full list of the Governing Body members over the years is given in Appendix 3.

Mylnefield Research Services Limited

Mylnefield Research Services (MRS) was incorporated in 1989 and started trading in 1992. MRS was established not only to protect and commercialise intellectual property derived from SCRI, but also to diversify the funding base and reduce the reliance of SCRI on public funding. A role which quickly became evident for MRS was the creation of public and private sector consortia which would fund some of SCRI's near market research. This was particularly important for so called minority crops which were grown on small areas but may well have a high market value. Such crops would not necessarily show up on the priorities list for government funding. A classic example of such consortia was that established to fund research into the production of improved varieties of raspberry, a crop which had always figured high in the priorities of SHRI and subsequently SCRI. The consortium brought together funding from private sector companies, growers through their levy to the Horticultural Development Company and other growers in Scotland who were members of the Scottish Society for Crop Research. With the removal of near-market research funding, including plant breeding, in the late 1980s, MRS took on the role of plant breeding to develop new and superior plant cultivars. In terms of protecting the intellectual property of work undertaken at SCRI, MRS secures the award of Plant Variety Rights for a range of crops and seeks patent protection on matters ranging widely from the practical production of biofuel to methods required in modern research laboratories for gene transfer. MRS also established a very successful analytical services



Nigel Kerby, Managing Director of MRS meets the Chinese Minister of Agriculture in Beijing.

business. The company now earns royalties from 23 countries and has over 450 licences to varieties. The very high commercial importance of some of these can be demonstrated by the fact that over 95% of the blackcurrant varieties used in Ribena, a highly successful blackcurrant drink made by GlaxoSmithKline, were produced at SCRI. The commercial success of the SCRI group, including MRS, was shown in the 2010 report by the independent economists, DTZ, with £17 being generated in the UK economy for every £1 of Scottish Government funding.

The Mylnefield Trust

The Mylnefield Trust was set up in 2000 as a charity, with funding predominantly from MRS and from other interested bodies. It has the following remit to: promote research and scientific work in the life, environmental and related sciences, in particular the production of agricultural, horticultural and forestry crops, methods of limiting or eradicating pests and diseases, wood sciences and biomathematics, methods of increasing production or growth, improving cultivation and research into improved cultivars; and, promote the dissemination of such research. In recent times, the main focus of support has been on education, for example through 'The Living Field', and training the next generation of plant breeders in cereals, potatoes and soft fruit.

Scottish Society for Crop Research

The Scottish Society for Crop Research was formed in 1981 from the merger of the Scottish Society for Research in Plant Breeding (SSRPB), which was the original management organisation of SPBS, and the Scottish Horticultural Research Association, a body established to provide financial and practical assistance to SHRI's soft fruit researchers. SSCR has always maintained close links with SCRI, although the former exists as an independent charity. The Society has its own investments, the income from which is used to satisfy the following remit:

to organise field and crop walks, and meetings, for the exchange of information;



to finance science-based publications for the benefit of its members;

to maintain contact, through its three crop sub-committees, which cover combinable and energy crops, potatoes, and soft fruit, with members with specialised interests;

to support research on topics of particular relevance to its members which would not otherwise be funded by other organisations;

and, to 'pump-prime' research to open up new areas of interest, with the purpose of generating much greater funding for such work in the future.

The Society's members encompass growers, processors, end-users, advisers and scientists.

As part of its knowledge transfer commitments, the Society initiated one day crop events to showcase new varieties and new technologies, during the summer months. These have since grown dramatically in size and attendance with additional financial and other support from levy boards, the private sector, etc. and are now well known under the titles of Potatoes in Practice, Cereals in Practice and Fruit for the Future.

It is of interest to the current Scottish Society for Crop Research that SSRPB's membership in 1921

numbered only 172, substantially less than the Society's membership today of over 300.

Research programmes and research output

The research programmes of SCRI over the past 30 years have been wide ranging, and covered many different crops and scientific disciplines. They have also changed quite dramatically over the years in response to various demands and pressures. These have included quite fundamental changes to the way in which the Institute was funded, changes in the nature of the priorities of both the British Government and the EU, and changes to the perceived importance of strategic needs to include matters such as sustainability and environmental change. It would be impossible to detail all the research and how the above changes have taken place with time in what is intended to be only a short history of the Institute. Those with specific, in-depth interests will find a wealth of detail in SCRI's Annual Reports (2), and in those of its predecessors, the Scottish Plant Breeding Station and the Scottish Horticultural Research Institute (3, 4). These reports include some very detailed information on the nature and outcome of the research funded, with additional valuable data on matters such as the summarised local



Potatoes in Practice.

daily weather reports for SCRI. For a number of years during the Directorship of Professor J R Hillman, the reports also contained his assessment of the state of the world in food production, financial and other terms. These provide in themselves a fascinating history of change in the world.

However, the scientific output of SCRI was quite remarkable over the 30 years of the Institute's existence, with over 4500 scientific publications, many of which were very highly regarded with the highest scientific rating, appearing in the world's top peer-reviewed scientific journals.

Out of this huge scientific output, it is of interest to highlight a few specific areas of activities which pre-empted and perhaps pointed the way towards the creation of The James Hutton Institute, which will shortly come into existence following the merger of SCRI and the Macaulay Land Use Research Institute (MLURI).

In the 1990s, the need to pull together a wider range of scientific disciplines, led to the creation of a range of research consortia. This had previously been the case on a small scale with, for example, the brassica scientists at SCRI working with the animal scientists of MLURI on the identification and impact of anti-metabolites in crops such as kale, swedes, turnips and forage rape in relation to health problems in cattle and sheep. This was extended in the 1990s to investigate the impact of oilseed rape on health in both humans and animals. In humans, medical scientists from both the Universities of Dundee and Southampton became involved to study the impact of oilseed rape on allergies. In animals, scientists from both MLURI and the Game Conservancy combined with SCRI staff to study the negative impact of over-winter feeding on oilseed rape on the health of wild deer.

More recently, a Memorandum of Understanding has been signed with SAC, both to ensure a multi-disciplinary approach to research and to optimise the staff skills and other resources available in both organisations. Funding bodies have also encouraged collaboration between UK organisations and in the case of the EU across all member states and those countries

the EU has relations with. Research consortia have been formed to conduct the research.

Through such collaborations both within and outside the Institute, SCRI made a major commitment to raising awareness of the nature of climate change. The resulting publication, 'Global Warming: Implications for Agriculture and Opportunities for Research', generated enormous interest both within the UK and internationally.

Most recently, the need to develop sustainable cropping research saw a further development of both the multi-organisational and multi-disciplinary approaches. SCRI entered into in partnership with a range of other organisations including SAC, the MLURI, SNH and the University of Dundee, and involving individuals and groups such as LEAF who are at the practical end of land use, to investigate the balance between sustainability and cropping. Among the disciplines and skills employed are those of bacteriologists, chemists, crop physiologists, crop scientists, ecologists, modellers, plant pathologists, plant breeders, statisticians and zoologists.



A LEAF farm Open Day.



University of Dundee staff at SCRI.

A formal Partnership was established between the University of Dundee and SCRI in 2002 when plant scientists from the University of Dundee co-located to the SCRI campus. In 2007, the College of Life Sciences created the Division of Plant Sciences which now has six Principal Investigators and a staff of nearly 50 people. The goals of the Division are to increase its international standing in basic plant science, to win significant external funding and publish in the best journals, and to attract excellent plant scientists to a career in Dundee. The Plant Sciences Division conducts basic research designed to explore and explain the mechanisms by which plants grow and develop in response to their environment and the translation of relevant scientific activities into, for example, crop improvement, biofuel development, and the assessment of biodiversity. The Division has already established many successful interactions with SCRI scientists and research groups which have led to substantial joint funding and new scientific achievements and opportunities. The partnership continues to grow and be strengthened by the complementary expertise, drive and enthusiasm of both organisations which bodes well for the future.

In plant breeding generally, the search to produce new varieties with the best combinations of yield, disease and pest resistance, and quality, led to the production of many very similar varieties, with the resulting major reduction in genetic variability. In times of increase in

the prevalence and virulence of pests and diseases as a result of natural mutation, combined with or even resulting from environmental change, such a narrow genetic base is a dangerous situation to be in as far as future-proofing the reliability and availability of crops. Far sighted scientists within SCRI have accordingly played a major role in the collection of old varieties and related wild species of both potatoes and forage brassicas. The Brassica Gene Bank was transferred to the National Vegetable Research Station at Wellesbourne, which later became Horticultural Research International and has now been absorbed by Warwick University while the Commonwealth Potato Collection is maintained at SCRI. It includes the wild collection made by Professor J G Hawkes of Birmingham University in the 1930s onwards and has accessions from the whole range of countries where wild potatoes grow and where potatoes were domesticated. It contains rich sources of material which can be used in breeding or research programmes aimed at providing improved disease resistance, as well as being useful material for the selection of varieties with fundamentally different characteristics.

Closely associated with the practical aspects of varietal improvement in brassicas, cereals, potatoes and soft fruit, have been the parallel researches into gene identity and genome mapping. This work started with fundamental studies in brassicas and cereals but was expanded greatly in cereals and potatoes and was subsequently extended to soft fruit.



Arbroath Pippin.

The above provides a very brief history of the antecedents of SCRI. However, for the true student of history, the Institute's strong association with fruit growing in Scotland goes back much further in time, not just decades but centuries. In the Middle Ages, the monks of Arbroath, Cupar and Lindores brought apple trees to Scotland as a source of both fruit and drink. This link is recognised by the presence at the head of the main SCRI driveway of an apple tree, The Oslin, also known as the Arbroath Pippin.

This was an early gift to SHRI. This variety originated from the monks of Arbroath Abbey in the 16th century. This tree also provides a link in later centuries to a major grower of apples in the Tay Valley, Patrick Matthew, (1790-1874), who had apple orchards in excess of ten thousand trees, at Gourdiehill near

Errol. Matthew was related to Admiral Duncan, victor at the naval battle of Camperdown and as such was part of a wealthy family of the type which contributed so much to scientific knowledge in these times. Not content with growing such fruit, Matthew conducted his own experiments on hybridisation to improve the crop, surely a forerunner of the world famous plant breeding undertaken by SCRI and its progenitors in later centuries. He was a deep scientific thinker about horticulture and agriculture, and his views on natural selection pre-dated those of Darwin by at least 30 years. It is also of interest that Matthew gave rise to the apple industry in New Zealand when two of his sons, Charles and James, successfully overcame the challenges and perils of long distance transportation of living material by sea, by taking both seed, and young plants in barrels, to establish the first commercial apple orchards in that part of the world at Matakana near Auckland.

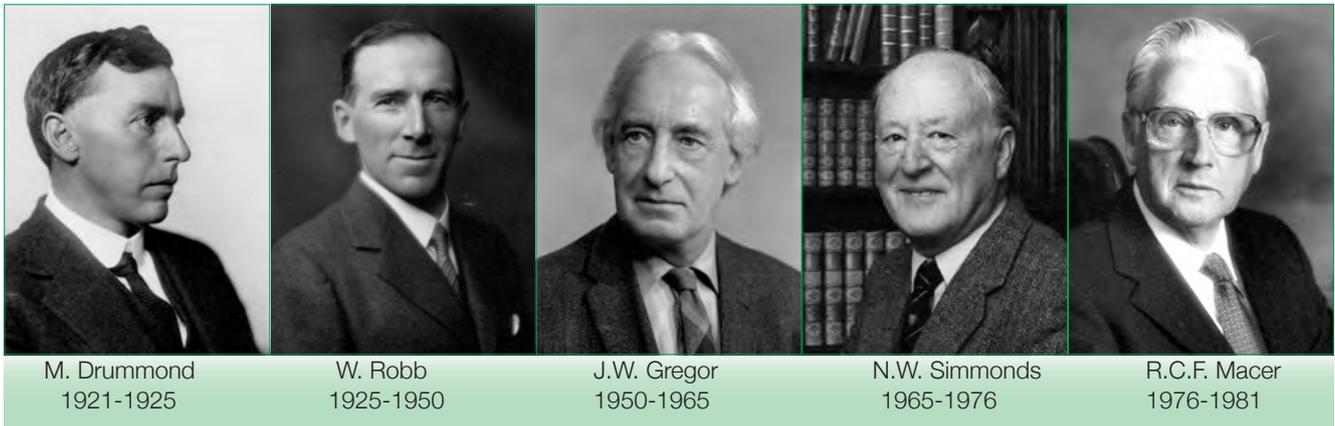
Any area of science has always had to accept the need for change. SCRI has always coped superbly well with such pressures during its thirty years of existence. With its outstanding achievements in both theoretical and practical research over that time, the staff at Mylnefield need have no fears about their abilities to meet the challenges of change in the future.



Appendix 1

Directors of the Scottish Plant Breeding Station, the Scottish Horticultural Research Institute and the Scottish Crop Research Institute

Scottish Plant Breeding Station



Scottish Horticultural Research Institute



Scottish Crop Research Institute



Appendix 2

List of cultivars, by crop, produced at the Scottish Plant Breeding Station (SPBS), the Scottish Horticultural Research Institute (SHRI) and the Scottish Crop Research Institute (SCRI)

Beans

Albyn Tick



Cabbage - Celtic Cross.

Brassicicas

Celtic Cross	Cabbage
Caledonian	Kale
Grampian	Kale
Grenadier	Kale
Pentland Brig	Horticultural Kale
Crail	Fodder Radish
Hot Stuff	Salad Rape
Interval	Forage Rape
Angus	Swede
Airlie	Swede
Brora	Swede
Criffel	Swede
Gowrie	Swede
Highlander	Swede
Invitation	Swede



Swede - Merrick.



Swede - Virtue.

Kenmore	Swede
Lomond	Swede
Melfort	Swede
Merrick	Swede
Pentland Harvester	Swede
SS12	Swede
Virtue	Swede
Appin	Stubble Turnip
Ballater	Stubble Turnip
Massif	Turnip

Cereals

Craigs Triumph	Barley
Tweed	Spring Barley
Tyne	Spring Barley
Albyn Bard	Oats
Albyn Donside	Oats
Albyn Empress	Oats
Bell	Oats
Craigs Afterlea	Oats
Early Miller	Oats
Earn	Oats
Etive	Oats
Fyne	Oats
Leven	Oats
Pentland Provender	Oats
Shearer	Oats



Spring Barley - Tweed.

Grasses

Scotia Cocksfoot
Scotia Timothy
Scotia Perennial Ryegrass



Lily - Karen.

Lilies

Achilles
Adonis
Angela
Ariadne
Barbara
Bronwen
Christopher North
Eileen
Eros
Hannah
Helen
Karen
Marie
Minos
Pan
Pandora
Pegasus
Peggy
Phoebus
Odysseus
Orestes
Rosemary
Theseus



Potatoes

Ailsa
Amour
Anya



Potato - Anya

Baillie
Blush
Brodick
Brodie
Buchan



Potato - Claret.

Claret
Craig's
Craig's Alliance
Craig's Bounty



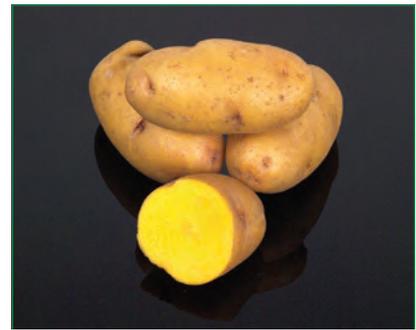
Potato - Cramond.

Craig's Defiance
Craig's Royal
Craig's Snow White
Chaski
Chincha
Cramond
Croft
Derek
Eden
Eve Balfour
Gemson
Glamis
Glenna
Golden Millennium
Harborough Harvest
Harlequin
Inca Bella
Inca Dawn
Inca Sun
Kirrie
Kirsty



Potato - Lady Balfour.

Lady Balfour
Mayan Gold
Mayan Queen
Mayan Star
Mayan Twilight
Moira
Montrose
Morag
Morna
Othello
Paru
Pentland Ace
Pentland Beauty
Pentland Crown
Pentland Dell
Pentland Envoy
Pentland Falcon
Pentland Glory
Pentland Hawk
Pentland Ivory
Pentland Javelin
Pentland Kappa
Pentland Lustre
Pentland Marble
Pentland Meteor
Pentland Raven



Potato - Inca Dawn..

Pentland Squire
Pioneer
Provan
Provost
Purple Star
Rhona
Red Craig's Royal
Roslin Bvumbwe **
Roslin Castle
Roslin Riviera
Roslin Chania*
Roslin Eburu*
Roslin Elementieta*
Roslin Mt Kenya*
Roslin Riviera*
Roslin Sasumua*
Roslin Tsangano**
Scarborough
Sebastian
Shelagh
Sheriff
Shula
Spey
Strath
Stirling
Tabitha
Tay
Teena
The Alness
Thyme
Torridon
Trixie
Vales Emerald
Vales Everest
Vales Sovereign



Potato - Vales Sovereign.

* use in East Africa only-mostly Kenya

** use in Malawi

Soft Fruit

Loch Maree Blackberry
 Loch Ness Blackberry
 Loch Tay Blackberry



Blackberry - Loch Ness.

Ben Alder Blackcurrant
 Ben Ard Blackcurrant
 Ben Avon Blackcurrant
 Ben Connan Blackcurrant



Blackcurrant - Ben Gairn.



Blackcurrant - Ben Klibreck.



Blackcurrant - Ben Starav.

Ben Dorain Blackcurrant
 Ben Finlay Blackcurrant
 Ben Gairn Blackcurrant
 Ben Hope Blackcurrant
 Ben Klibreck Blackcurrant
 Ben Lair Blackcurrant
 Ben Nare Blackcurrant
 Ben NZ Blackcurrant
 Ben Rua Blackcurrant
 Ben Tirran Blackcurrant

Ben Starav Blackcurrant
 Ben Tron Blackcurrant
 Ben Vane Blackcurrant
 Big Ben Blackcurrant
 9476-2 Blackcurrant



Raspberry - Glen Ample.

Glen Ample Raspberry
 Glen Clova Raspberry
 Glen Doll Raspberry
 Glen Ericht Raspberry
 Glen Fyne Raspberry
 Glen Lyon Raspberry
 Glen Magna Raspberry
 Glen Moy Raspberry
 Glen Prosen Raspberry
 Glen Rosa Raspberry



Raspberry - Glen Fyne.

Glen Shee Raspberry
 Glen Yarra Raspberry



Strawberry - Symphony.

Auchincruive Climax Strawberry
 Melody Strawberry
 Red Gauntlet Strawberry
 Rhapsody Strawberry
 Silver Jubilee Strawberry
 Symphony Strawberry
 Talisman Strawberry
 Templar Strawberry
 Tayberry Blackberry x
 Raspberry hybrid



Tayberry.



Appendix 3

The Governing Bodies of SCRI

1981

Chairman: J. Arbuckle, O.B.E.
A. Biggar, C.B.E., M.C., B.Sc., F.R.A.G.S.
T.M. Clucas
Professor G.R. Dickson, B.Sc.(Agr), Ph.D., F.I.Biol.
Professor W.W. Fletcher, B.Sc., Ph.D. F.R.S.E., F.L.S., F.I.Biol.
Beatrice A. Gordon, B.Sc.(Agr).
D. Henderson
Professor P. Jarvis, M.A., Ph.D., Fil. Dr.
Professor J.L. Jinks, D.Sc., F.R.S., F.I.Biol.
A.D. Kay, B.Sc.
Professor D. Lee, B.Sc., Ph.D.
J. Macfarlane
G.D. Morrison
A.G. Porter
J.R. Robertson
Professor N.F. Robertson, C.B.E., B.Sc., M.A., Ph.D., Dip.Agric.
Sc., F.R.S.E.
R.J. Smith
Professor D.H.N. Spence, B.Sc., Ph.D., F.R.S.E.
Professor W.D.P. Stewart, Ph.D., D.Sc., F.R.S., F.R.S.E.
Professor M.B. Wilkins, Ph.D., D.Sc., A.K.C., F.R.S.E.

1982

Chairman: J. Arbuckle, O.B.E.
A. Biggar, C.B.E., M.C., B.Sc., F.R.A.G.S.
T.M. Clucas
Professor G.R. Dickson, B.Sc.(Agr), Ph.D., F.I.Biol.
Professor W.W. Fletcher, B.Sc., Ph.D. F.R.S.E., F.L.S., F.I.Biol.
Beatrice A. Gordon, B.Sc.(Agr).
D. Henderson
Professor P. Jarvis, M.A., Ph.D., Fil.Dr.
Professor J.L. Jinks, D.Sc., F.R.S., F.I.Biol.
A.D. Kay, B.Sc.
Professor D. Lee, B.Sc., Ph.D.
J. Macfarlane
G.D. Morrison
A.G. Porter
J.R. Robertson
Professor N.F. Robertson, C.B.E., B.Sc., M.A., Ph.D., Dip.Agric.
Sc., F.R.S.E.
R.J. Smith
Professor D.H.N. Spence, B.Sc., Ph.D., F.R.S.E.
Professor W.D.P. Stewart, Ph.D., D.Sc., F.R.S., F.R.S.E.
Professor M.B. Wilkins, Ph.D., D.Sc., A.K.C., F.R.S.E.

1983

Chairman: Professor N.F. Robertson, C.B.E., B.Sc., M.A., Ph.D.,
Dip.Agric.Sc., F.R.S.E.
J. Arbuckle, O.B.E.
H.R.G. Aykroyd
Professor W.W. Fletcher, B.Sc., Ph.D. F.R.S.E., F.L.S., F.I.Biol.
A.G.M. Forbes
J.B. Forrest

G. Gammie
W.L. Gill
Beatrice A. Gordon, B.Sc.(Agr)
M.D. Henderson
Professor P. Jarvis, M.A., Ph.D., Fil.Dr.
Professor J.L. Jinks, D.Sc., F.R.S., F.I.Biol.
A.D. Kay, B.Sc.
J. Macfarlane
G.D. Morrison
A. Patullo
Professor D.H.N. Spence, B.Sc., Ph.D., F.R.S.E.
Professor W.D.P. Stewart, Ph.D., D.Sc., F.R.S., F.R.S.E.
Professor M.B. Wilkins, Ph.D., D.Sc., A.K.C., F.R.S.E.

1984

Chairman: Professor N.F. Robertson, C.B.E., B.Sc., M.A., Ph.D.,
Dip.Agric.Sc., F.R.S.E.
J. Arbuckle, O.B.E.
H.R.G. Aykroyd
Professor W.W. Fletcher, B.Sc., Ph.D. F.R.S.E., F.L.S., F.I.Biol.
A.G.M. Forbes
J.B. Forrest
G. Gammie
W.L. Gill
Beatrice A. Gordon, B.Sc.(Agr)
M.D. Henderson
J.A. Inverarity
Professor P. Jarvis, M.A., Ph.D., Fil.Dr.
Professor J.L. Jinks, D.Sc., F.R.S., F.I.Biol.
A.D. Kay, B.Sc.
J. Macfarlane
G.D. Morrison
A. Patullo
Professor D.H.N. Spence, B.Sc., Ph.D., F.R.S.E.
Professor W.D.P. Stewart, Ph.D., D.Sc., F.R.S., F.R.S.E.
Professor M.B. Wilkins, Ph.D., D.Sc., A.K.C., F.R.S.E.

1985

Chairman: Professor N.F. Robertson, C.B.E., B.Sc., M.A., Ph.D.,
Dip.Agric.Sc., F.R.S.E.
H.R.G. Aykroyd
Professor W.W. Fletcher, B.Sc., Ph.D., F.R.S.E., F.L.S., F.I.Biol.
A.G.M. Forbes
J.B. Forrest
G. Gammie
W.L. Gill
Beatrice A. Gordon, B.Sc.(Agr)
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Professor P. Jarvis, M.A., Ph.D., Fil.Dr.
Professor J.L. Jinks, D.Sc., F.R.S., F.I.Biol.
A.D. Kay, B.Sc.
A. Logan
J. Macfarlane
G.D. Morrison
A. Patullo
Professor W.D.P. Stewart, Ph.D., D.Sc., F.R.S., F.R.S.E.
Professor M.B. Wilkins, Ph.D., D.Sc., A.K.C., F.R.S.E.

1986

Chairman: Professor N.F. Robertson, C.B.E., B.Sc., M.A., Ph.D.,
Dip.Agric.Sc., F.R.S.E.
H.R.G. Aykroyd
Professor D. Boulter, M.A., D.Phil.(Oxon.)
A.G.M. Forbes
J.B. Forrest
G. Gammie
W.L. Gill
Professor J.D. Hayes, B.Sc., M.S., Ph.D., C.Biol., F.I.Biol.
J.A. Inverarity
A.D. Kay, B.Sc.
Professor D.L. Lee, B.Sc., Ph.D., C.Biol., F.I.Biol.
A. Logan
S. Mackie
P.G. Mitchell
G.D. Morrison
Professor J.W. Parsons, B.Sc., Ph.D., C.Biol., F.I.Biol.
A. Patullo
Professor W.D.P. Stewart, Ph.D., D.Sc., F.R.S., F.R.S.E.
Professor M.B. Wilkins, Ph.D., D.Sc., A.K.C., F.R.S.E.
Professor M.M. Yeoman, M.Sc., Ph.D., F.R.S.E.

1987

Chairman: Professor N.F. Robertson, C.B.E., B.Sc., M.A., Ph.D.,
Dip.Agric.Sc., F.R.S.E.
H.R.G. Aykroyd
Professor D. Boulter, M.A., D. Phil.(Oxon.)
A.G.M. Forbes
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G. Gammie
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Professor J.D. Hayes, B.Sc., M.S., Ph.D., C.Biol., F.I.Biol.
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A. Patullo
Professor W.D.P. Stewart, Ph.D., D.Sc., F.R.S., F.R.S.E.
Professor M.B. Wilkins, Ph.D., D.Sc., A.K.C., F.R.S.E.
Professor M.M. Yeoman, M.Sc., Ph.D., F.R.S.E.

1988

Chairman: Professor N.F. Robertson, C.B.E., B.Sc., M.A., Ph.D.,
Dip.Agric.Sc., F.R.S.E.
H.R.G. Aykroyd
Professor D. Boulter, M.A., D. Phil.(Oxon.)
A.G.M. Forbes
J.B. Forrest
G. Gammie
Professor J.D. Hayes, B.Sc., M.S., Ph.D., C.Biol., F.I.Biol.
J.A. Inverarity
A.D. Kay, B.Sc.
Professor D.L. Lee, B.Sc., Ph.D., C.Biol., F.I.Biol.

A. Logan
P.G. Mitchell
G.D. Morrison
Professor J.W. Parsons, B.Sc., Ph.D., C.Biol., F.I.Biol.
A. Patullo
Professor M.B. Wilkins, Ph.D., D.Sc., A.K.C., F.R.S.E.
Professor M.M. Yeoman, M.Sc., Ph.D., F.R.S.E.

1989

Chairman: J.A. Inverarity, O.B.E.
H.R.G. Aykroyd
Professor D. Boulter, M.A., D. Phil.(Oxon.)
J.B. Forrest, F.R.Ag.S.
Professor J.D. Hayes, B.Sc., M.S., Ph.D., C.Biol., F.I.Biol.
Professor D.L. Lee, B.Sc., Ph.D., C.Biol., F.I.Biol.
A. Logan
Professor T.A. Mansfield, B.Sc., Ph.D., F.I.Biol., F.R.S.
J.L. Millar, C.B.E., C.A.
P.G. Mitchell
Professor J.W. Parsons, B.Sc., Ph.D., C.Biol., F.I.Biol.
J.G. Porter
Professor J.A. Raven, M.A., Ph.D., F.R.S., F.R.S.E.
G. Rennie
R.O. Sykes
L.M. Thomson

1990

Chairman: J.L. Millar, C.B.E., C.A.
H.R.G. Aykroyd
Professor D. Boulter, M.A., D. Phil.(Oxon.)
J.B. Forrest, F.R.Ag.S.
Professor J.D. Hayes, B.Sc., M.S., Ph.D., C.Biol., F.I.Biol.
J.A. Inverarity, O.B.E.
Professor D.L. Lee, B.Sc., Ph.D., C.Biol., F.I.Biol.
A. Logan
Professor T.A. Mansfield, B.Sc., Ph.D., F.I.Biol., F.R.S.
P.G. Mitchell
Professor J.W. Parsons, B.Sc., Ph.D., C.Biol., F.I.Biol.
J.G. Porter
Professor J.A. Raven, M.A., Ph.D., F.R.S., F.R.S.E.
G. Rennie
L.M. Thomson

1991

Chairman: J.L. Millar, C.B.E., C.A.
H.R.G. Aykroyd
Professor D. Boulter, M.A., D. Phil.(Oxon.)
Professor H. Dick, M.D., F.R.C.P.Glas., F.R.C.Path, F.I.Biol., F.R.S.E.
J.B. Forrest, F.R.Ag.S.
Professor J.D. Hayes, B.Sc., M.S., Ph.D., C.Biol., F.I.Biol.
J.A. Inverarity, O.B.E.
A.M. Jacobsen
Professor D.L. Lee, B.Sc., Ph.D., C.Biol., F.I.Biol.
A. Logan
Professor T.A. Mansfield, B.Sc., Ph.D., F.I.Biol., F.R.S.
P.G. Mitchell
Professor J.W. Parsons, B.Sc., Ph.D., C.Biol., F.I.Biol.
J.G. Porter



Professor J.A. Raven, M.A., Ph.D., F.R.S., F.R.S.E.
G. Rennie
L.M. Thomson

1992

Chairman: J.L. Millar, C.B.E., C.A.
Professor H. Dick, M.D., F.R.C.P.Glas., F.R.C.Path, F.I.Biol., F.R.S.E.
J.B. Forrest, F.R.Ag.S.
J.E. Godfrey
Professor J.D. Hayes, B.Sc., M.S., Ph.D., C.Biol., F.I.Biol.
J.A. Inverarity, O.B.E.
A.M. Jacobsen
Professor D.L. Lee, B.Sc., Ph.D., C.Biol., F.I.Biol., F.R.S.A.
A. Logan
Professor T.A. Mansfield, B.Sc., Ph.D., F.I.Biol., F.R.S.
Professor J.W. Parsons, B.Sc., Ph.D., C.Biol., F.I.Biol.
Professor J.A. Raven, M.A., Ph.D., F.R.S., F.R.S.E.
G. Rennie
L.M. Thomson
T.P.M. Thomson

1993

Chairman: J.L. Millar, C.B.E., C.A.
Professor H. Dick, M.D., F.R.C.P.Glas., F.R.C.Path, F.I.Biol., F.R.S.E.
J.B. Forrest, F.R.Ag.S.
J.E. Godfrey
Professor J.D. Hayes, B.Sc., M.S., Ph.D., C.Biol., F.I.Biol.
J.A. Inverarity, O.B.E.
A.M. Jacobsen
Professor D.L. Lee, B.Sc., Ph.D., C.Biol., F.I.Biol., F.R.S.A.
A. Logan
Professor T.A. Mansfield, B.Sc., Ph.D., F.I.Biol., F.R.S.
Professor J.W. Parsons, B.Sc., Ph.D., C.Biol., F.I.Biol.
Professor J.A. Raven, M.A., Ph.D., F.R.S., F.R.S.E.
G. Rennie
L.M. Thomson
T.P.M. Thomson

1994

Chairman: J.L. Millar, C.B.E., C.A.
Professor H. Dick, M.D., F.R.C.P.Glas., F.R.C.Path, F.I.Biol., F.R.S.E.
J.B. Forrest, F.R.Ag.S.
J.E. Godfrey, B.Sc.
Professor J.D. Hayes, B.Sc., M.S., Ph.D., C.Biol., F.I.Biol.
J.A. Inverarity, O.B.E.
A.M. Jacobsen,
Professor D.L. Lee, B.Sc., Ph.D., C.Biol., F.I.Biol., F.R.S.A.
A. Logan
A.N. MacCallum, B.Sc.
Professor T.A. Mansfield, B.Sc., Ph.D., F.I.Biol., F.R.S.
Professor J.W. Parsons, B.Sc., Ph.D., C.Biol., F.I.Biol.
Professor J.A. Raven, M.A., Ph.D., F.R.S., F.R.S.E.
G. Rennie
Professor A.R. Slabas, B.Sc., D.Phil.
L.M. Thomson
T.P.M. Thomson

1995

Chairman: J.L. Millar, C.B.E., C.A.
Professor H. Dick, M.D., F.R.C.P.Glas., F.R.C.Path, F.I.Biol., F.R.S.E.
J.B. Forrest, F.R.Ag.S.
J.E. Godfrey, B.Sc., A.R.Ag.S.
Professor J.D. Hayes, B.Sc., M.S., Ph.D., C.Biol., F.I.Biol.
J.A. Inverarity, O.B.E., F.R.Ag.S., F.R.S.A.
A.M. Jacobsen, B.Sc.Agric.
Professor D.L. Lee, B.Sc., Ph.D., C.Biol., F.I.Biol., F.Z.S., F.R.S.A.
A. Logan, S.D.A., N.D.A., F.I.Hort.
A.N. MacCallum, B.Sc.
Professor T.A. Mansfield, B.Sc., Ph.D., F.I.Biol., F.R.S.
Professor J.A. Raven, M.A., Ph.D., F.R.S., F.R.S.E.
G. Rennie, O.N.D.Agric.
Professor A.R. Slabas, B.Sc., D.Phil.
T.P.M. Thomson

1996-97

Chairman: J.L. Millar, C.B.E., C.A./ A.N. MacCallum, B.Sc., F.D.I.C.
A.C. Bain
Professor R.J. Cogdell, B.Sc., Ph.D., F.R.S.E.
Professor H. Dick, M.D., F.R.C.P.Glas., F.R.C.Path, F.I.Biol., F.R.S.E.
J.M. Drysdale
J.B. Forrest, F.R.Ag.S.
J.E. Godfrey, B.Sc., A.R.Ag.S.
Professor J.D. Hayes, B.Sc., M.S., Ph.D., C.Biol., F.I.Biol.
K. Hopkins, F.C.A.
J.A. Inverarity, O.B.E., C.A., F.R.Ag.S., F.R.S.A.
A.M. Jacobsen, B.Sc.Agric.
Professor D.L. Lee, B.Sc., Ph.D., C.Biol., F.I.Biol., F.Z.S., F.R.S.A.
A. Logan, S.D.A., N.D.A., F.I.Hort.
Professor T.A. Mansfield, B.Sc., Ph.D., F.I.Biol., F.R.S.
Professor J.A. Raven, M.A., Ph.D., F.R.S., F.R.S.E.
G. Rennie, O.N.D.Agric.
Professor A.R. Slabas, B.Sc., D.Phil.
T.P.M. Thomson
P. Whitworth, H.N.C.
Professor P.C. Young, B.Tech., M.Sc., M.A., Ph.D., Wh.F., C.Eng., M.I.E.E., F.I.M.A., F.R.S.S.

1997-98

Chairman: A.N. MacCallum, B.Sc., F.D.I.C.
A.C. Bain
Professor J.J.F. Belch, M.B., Ch.B., F.R.C.P., M.D.
Professor R.J. Cogdell, B.Sc., Ph.D., F.R.S.E.
J.M. Drysdale
Professor J. Evans O.B.E., B.Sc., Ph.D., D.Sc., F.I.C.For.
J.E. Godfrey, B.Sc., A.R.Ag.S.
K. Hopkins, F.C.A.
Professor B. King, M.Sc., Ph.D., F.I.W.Sc., C.Biol., F.I.Biol.
Emeritus Professor J.S. Marsh C.B.E., M.A., P.G.Dip.Ag.Econ., F.R.A.S.E., F.R.Ag.S., C.Biol., F.I.Biol.
Dr. J.M. Sime, M.Sc., Ph.D., F.R.S.C., C.Chem.
Professor A.R. Slabas, B.Sc., D.Phil.
P. Whitworth, H.N.C.
Professor P.C. Young, B.Tech., M.Sc., M.A., Ph.D., Wh.F., C.Eng., M.I.E.E., F.I.M.A., F.R.S.S.

1998-99

Chairman: J.E. Godfrey, B.Sc., A.R.Ag.S.
 Professor J.J.F. Belch, M.B., Ch.B., F.R.C.P., M.D.
 Professor R.J. Cogdell, B.Sc., Ph.D., F.R.S.E.
 J. M. Drysdale
 Professor J. Evans O.B.E., B.Sc., Ph.D., D.Sc., F.I.C.For.
 K. Hopkins, F.C.A.
 Professor B. King, M.Sc., Ph.D., F.I.W.Sc., C.Biol., F.I.Biol.
 Emeritus Professor Sir John S. Marsh C.B.E., M.A., P.G.Dip.
 Ag.Econ., F.R.A.S.E., F.R.Ag.S., C.Biol., F.I.Biol.
 J.M. Sime, M.Sc., Ph.D., F.R.S.C., C.Chem.
 Professor A.R. Slabas, B.Sc., D.Phil.
 P. Whitworth, H.N.C.
 Professor P.C. Young, B.Tech., M.Sc., M.A., Ph.D., Wh.F., C.Eng.,
 M.I.E.E., F.I.M.A., F.R.S.S.

1999-2000

Chairman: J.E. Godfrey, B.Sc., F.R.Ag.S.
 E. Angus, MBE, M.Sc., Fio.D.
 Professor J.J.F. Belch, M.B., Ch.B., F.R.C.P., M.D.
 Professor R.J. Cogdell, B.Sc., Ph.D., F.R.S.E.
 Dr K. Dawson, B.Sc., Ph.D., D.I.C.P.,
 Dr M. Eddie, B.Agr., Ph.D.
 Professor M.J. Emes, B.Sc., Ph.D.
 Professor J. Evans, O.B.E., B.Sc., Ph.D., D.Sc., F.I.C.For.
 Wendy Goldstraw, B.Sc., P.G.Dip., B.A., M.C.I.P.D.
 K. Hopkins, F.C.A.
 Professor B. King, M.Sc., Ph.D., F.I.W.Sc., C.Biol., F.I.Biol.
 I. McLaren, S.D.A.
 Emeritus Professor Sir John S. Marsh C.B.E., M.A. P.G.DipAg.
 Econ., F.R.A.S.E., F.R.Ag.S., C.Biol., F.I.Biol.
 Professor A.R. Slabas, B.Sc., D.Phil.
 P. Whitworth

2000-2001

Chairman: J.E. Godfrey, B.Sc., F.R.Ag.S.
 E. Angus, MBE, M.Sc., Fio.D.
 Professor J.J.F. Belch, M.B., Ch.B., F.R.C.P., M.D.
 Professor R.J. Cogdell, B.Sc., Ph.D., F.R.S.E.
 Dr K. Dawson, B.Sc., Ph.D., D.I.C.P.
 Dr M. Eddie, B.Agr., Ph.D.
 Professor M.J. Emes, B.Sc., Ph.D.
 Professor J. Evans, OBE, B.Sc., Ph.D., D.Sc., F.I.C.For.
 Wendy Goldstraw, B.Sc., P.G.Dip. B.A., M.C.I.P.D.
 K. Hopkins, F.C.A.
 Professor B. King, M.Sc., Ph.D., F.I.W.Sc., C.Biol., F.I.Biol.
 I. McLaren, S.D.A.
 Emeritus Professor Sir John S. Marsh, C.B.E., M.A., P.G.Dip.
 Ag.Econ., F.R.A.S.E., F.R.Ag.S., C.Biol., F.I.Biol.
 Professor A.R. Slabas, B.Sc., D.Phil.
 P. Whitworth

2001-2002

Chairman: J.E. Godfrey, B.Sc., F.R.Ag.S.
 E. Angus, M.B.E., M.Sc., Fio.D.
 Professor J.J.F. Belch, M.B., Ch.B., F.R.C.P., M.D.
 Professor R.J. Cogdell, B.Sc., Ph.D., F.R.S.E.
 Dr K. Dawson, B.Sc., Ph.D., D.I.C.P.

Dr M. Eddie, B.Agr., Ph.D.
 Professor M.J. Emes, B.Sc., Ph.D.
 Professor J. Evans, OBE, B.Sc., Ph.D., D.Sc., F.I.C.For.
 Wendy Goldstraw, B.Sc., P.G.Dip.B.A., M.C.I.P.D.
 K. Hopkins, F.C.A.
 Professor B. King, M.Sc., Ph.D., F.I.W.Sc., C.Biol., F.I.Biol.
 I. McLaren, S.D.A.
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 E. Angus, M.B.E., M.Sc., Fio.D.
 Professor J.J.F. Belch, M.B., Ch.B., F.R.C.P., M.D.
 Professor R.J. Cogdell, B.Sc., Ph.D., F.R.S.E.
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 Ag.Econ., F.R.A.S.E., F.R.Ag.S., C.Biol., F.I.Biol.
 Professor A.R. Slabas, B.Sc., D.Phil.
 P. Whitworth

2003-2004

Chairman: Professor Bernard King, M.Sc., Ph.D., F.I.W.Sc.,
 C.Biol., F.I.Biol.
 Mr Edward Angus, M.B.E., M.Sc., Fio.D.
 Dr Martin Battersby, B.Sc., D.Phil.
 Professor David Boxer, B.Sc., Ph.D.
 Professor Richard Cogdell, B.Sc., Ph.D., F.R.S.E.
 Dr Keith Dawson, B.Sc., Ph.D., D.I.C.P.
 Dr Mervyn Eddie, B.Agr., Ph.D.
 Mrs Wendy Goldstraw, B.Sc., P.G.Dip.B.A., M.C.I.P.D.
 Mr Keith Hopkins, F.C.A.
 Dr Thomas Jolliffe, B.Sc., Ph.D.
 Mr Ian McLaren, S.D.A.
 Emeritus Professor Sir John Marsh, C.B.E., M.A., P.G.Dip.
 Ag.Econ., F.R.A.S.E., F.R.Ag.S., C.Biol., F.I.Biol.
 Dr Michael Morgan, B.A. Ph.D.
 Professor Steve Parry, B.Sc., Ph.D.
 Professor A.R. Slabas, B.Sc., D.Phil.
 Professor George Salmond, B.Sc., M.A., Ph.D., F.R.S.A.

2004-2005

Chairman: Professor Bernard King, M.Sc., Ph.D., F.I.W.Sc.,
 C.Biol., F.I.Biol.
 Dr Martin Battersby, B.Sc., D.Phil.
 Professor David Boxer, B.Sc., Ph.D.
 Dr Keith Dawson, B.Sc., Ph.D., D.I.C.P.
 Mrs Wendy Goldstraw, B.Sc., P.G.Dip.B.A., M.C.I.P.D.



Mr Keith Hopkins, F.C.A.
Dr Thomas Jolliffe, B.Sc., Ph.D.
Mr Ian McLaren, S.D.A.
Emeritus Professor Sir John Marsh, C.B.E., M.A., P.G.Dip.
Ag.Econ., F.R.A.S.E., F.R.Ag.S., C.Biol., F.I.Biol.
Dr Michael Morgan, B.A. Ph.D.
Professor A.R. Slabas, B.Sc., D.Phil.
Professor George Salmond, B.Sc., M.A., Ph.D., F.R.S.A.

2006

Chairman: Professor Bernard King, M.Sc., Ph.D., F.I.W.Sc.,
C.Biol., F.I.Biol.
Dr Martin Battersby, B.Sc., D.Phil.
Professor David Boxer, B.Sc., Ph.D.
Dr Keith Dawson, B.Sc., Ph.D., D.I.C.P.
Mrs Wendy Goldstraw, B.Sc., P.G.Dip.B.A., M.C.I.P.D.
Mr Keith Hopkins, F.C.A.
Dr Thomas Jolliffe, B.Sc., Ph.D.
Mr Ian McLaren, S.D.A.
Emeritus Professor Sir John Marsh, C.B.E., M.A., P.G.Dip.
Ag.Econ., F.R.A.S.E., F.R.Ag.S., C.Biol., F.I.Biol.
Dr Michael Morgan, B.A. Ph.D.
Professor Steve Parry, B.Sc., Ph.D.
Professor George Salmond, B.Sc., M.A., Ph.D., F.R.S.A.

2007

Chairman: Professor Bernard King, M.Sc., Ph.D., F.I.W.Sc.,
C.Biol., F.I.Biol.
Mr Peter Berry, C.M.G., M.A., F.R.S.E.
Professor David Boxer, B.Sc., Ph.D.
Dr Keith Dawson, B.Sc., Ph.D., D.I.C.P.
Mrs Wendy Goldstraw, B.Sc., P.G.Dip.B.A., M.C.I.P.D.
Mr Keith Hopkins, F.C.A.
Dr Thomas Jolliffe, B.Sc., Ph.D.

Mr Ian McLaren, S.D.A.
Professor Steve Parry, B.Sc., Ph.D.
Professor George Salmond, B.Sc., M.A., Ph.D., F.R.S.A.
Professor Wilson Sibbett, C.B.E., F.R.S., F.R.S.E.
Mr Allan Stevenson, B.Com., C.A., F.Inst.D., A.R.Ag.S.

2008

Chairman: Mr Peter Berry, C.M.G., M.A., F.R.S.E.
Professor David Boxer, B.Sc., Ph.D.
Dr Keith Dawson, B.Sc., Ph.D., D.I.C.P.
Mrs Wendy Goldstraw, B.Sc., P.G.Dip.B.A., M.C.I.P.D.
Dr Thomas Jolliffe, B.Sc., Ph.D.
Mr Ian McLaren, S.D.A.
Mr A D (Sandy) Morrison, B.Sc.
Professor Steve Parry, B.Sc., Ph.D.
Professor George Salmond, B.Sc., M.A., Ph.D., F.R.S.A.
Professor Wilson Sibbett, C.B.E., F.R.S., F.R.S.E.
Mr Allan Stevenson, B.Com., C.A., F.Inst.D., A.R.Ag.S.

2009

Chairman: Mr Peter Berry, C.M.G., M.A., F.R.S.E.
Professor David Boxer, B.Sc., Ph.D.
Mrs Wendy Goldstraw, B.Sc., P.G.Dip.B.A., M.C.I.P.D.
Dr Thomas Jolliffe, B.Sc., Ph.D.
Mr Ian McLaren, S.D.A.
Mr A D (Sandy) Morrison, B.Sc.
Professor Steve Parry, B.Sc., Ph.D.
Professor George Salmond, B.Sc., M.A., Ph.D., F.R.S.A.
Professor Wilson Sibbett, C.B.E., F.R.S., F.R.S.E.
Mr Allan Stevenson, B.Com., C.A., F.Inst.D., A.R.Ag.S.
Mr Andrew Wilson, B.A., F.C.I.B.S.

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