

Introduction by the Director

John R. Hillman



®The Scottish Crop Research Institute (SCRI) is a non-profit-making limited company established under the Companies Act, has charitable status, and is currently classified as a Non-Departmental Public Body because over 50% of the total funding is received as grant-in-aid from the Scottish Executive Environment and Rural Affairs Department (SEERAD). The Members of the Company are also members of the Governing Body and are appointed by the First Minister. Staff are not formally civil servants, but are members of the Scottish Executive Environment and Rural Affairs Department Superannuation Scheme, 1999. SEERAD also funds any redundancies, the site, and much of its fabric and capital equipment. There is also a Management Statement and Financial Memorandum embodying the formal relationship with SEERAD. The Pay and

Grading System, and Staff and Management Codes under which the Institute operates are administered by the Biotechnology and Biological Sciences Research Council (BBSRC).

The Institute is committed to the implementation of Corporate Governance, which requires the highest standards in the three key areas of openness, integrity, and accountability. The Governing Body has therefore drawn up a Code of Practice to guide the conduct of its members and has established the appropriate procedures and remits to ensure adherence to these standards.

On 31 March 2000, six new members were appointed to the Governing Body and three current members were re-appointed. All the appointments were for a four-year period. The new members are Mr E Angus


The Mission of SCRI is:


“To sustain excellence and our international reputation for strategic research into plant, crop, and environmentally related sciences of particular importance to Scotland and of wider international relevance, bringing added value and new opportunities to agriculture, forestry, horticulture, and the bioindustries in an environmentally sustainable manner”.


To achieve this Mission, SCRI aims


- to enhance its status as an international centre of excellence in plant and environmental science and to contribute fundamental knowledge of plant/crop systems to the UK and international science base;
- to provide a scientific and administrative infrastructure that supports high-quality, innovative, basic, and strategic research;
- to enhance the utility and value of plant and crop species, in particular, our mandate crops – barley, potato and soft fruit, to improve agricultural efficiencies and offer options to achieve profitability;
- to establish a critical mass in key strategic areas that is connected to a long-term vision;
- to develop more sustainable, environmentally sensitive and systems-based approaches to minimise inputs and maximise product quality and safety;
- to create value-added opportunities in our plant, crop, and environment-related industries by developing the technologies and knowledge required to sustain and to improve international competitiveness;
- to promote public awareness and understanding of relevant bioscience and environmental issues to assist informed public debate;
- to recognise excellence and encourage training and rewards to staff to ensure the success of the science programme;
- to provide a stimulating environment for research endeavours and student training;
- to sustain a dedicated knowledge- and technology-transfer operation that promotes and facilitates collaboration with global industry;
- to meet end-user needs.

MBE, Dr K Dawson, Dr M Eddie, Professor M Emes, Mrs W Goldstraw, and Mr I McLaren. The three re-appointed members are Professor R J Cogdell, Mr K Hopkins, and Mr P Whitworth. Three members have retired from the Governing Body, namely Mr J M Drysdale, Dr J M Sime, and Professor P C Young.

 SCRI was established in 1981 by an amalgamation of the Scottish Horticultural Research Institute (SHRI, founded at Invergowrie, Dundee in 1951) and the Scottish Plant Breeding Station (SPBS, founded at East Craigs, Edinburgh in 1921). In 1987, the Institute assumed managerial responsibility for Biomathematics & Statistics Scotland (BioSS), formerly the Scottish Agricultural Statistics Service.


 SCRI is a major international centre for basic, strategic, and applied research on agricultural, horticultural and industrial crops and on the underlying biological processes common to all plants. It is the only such institute in Scotland and Northern Britain, and the range of complementary skills assembled at the Institute, from fundamental molecular genetics to glasshouse- and field-trials, with exploitation of the SCRI-based international genetic resources in a region of high phytosanitary conditions, is unique within the UK.


 The science is optimised by a matrix management system comprising three themes and nine inter-related research programmes. Management structures are regularly reviewed to ensure maximum effectiveness of the research at SCRI.

 During the past year, the Institute has completed a major Science Strategy Review. The review team:


- assessed the quality, novelty, focus, and timeliness of current and projected research objectives and their relevance to SCRI's position within Scottish, UK, and International plant science communities;
- examined the management of science within the Institute, including the effectiveness of communication and synergies within and between the various research groupings;
- made recommendations on the future research direction and integration of research activities. Wealth-creating potential and industrial relevance were considered high-priority targets.


The review took into account views of staff, senior management, the Governing Body, and SEERAD.

 The SCRI research programmes are peer-reviewed at many levels. Each year, the 'core' programme of research comprising a number of projects is assessed by the Agricultural and Biological Research Group of SEERAD. New projects are appraised by advisers prior to commissioning, progress is monitored annually and, ultimately, a final report is produced for evaluation.

 Every four years, SEERAD commissions BBSRC to appoint a Visiting Group to review the work of the Institute. In 1998, a Visiting Group carried out a scientific audit of the quality and conduct of SCRI's core research programme and related work. It assessed SCRI's effectiveness in managing its resources to meet the needs of users and beneficiaries of research, and the Institute's strategic plans for the future development of its scientific programme.

The Mid-Term Implementation Report (November 2000) showed that all 25 recommendations of the VG Report had been implemented. Nineteen of the 25 recommendations related to the need to formulate a more focused and integrated science strategy based on reviews involving a corporate approach. In the past year, the management of the Institute has been substantially restructured, two new key members of staff appointed (Professor W Powell, Deputy Director and D Watt, Institute Secretary), a Corporate Plan acceptable to SEERAD was developed, new initiatives launched, and the composition and operation of the Governing Body amended to ensure best practice.

 A broad multidisciplinary approach to fundamental and strategic research, and technology transfer, are special strengths of SCRI. Our programmes span the disciplines of genetics and breeding, molecular and cellular biology, biotechnology, plant pathology (bacteriology, entomology, mycology, nematology, and virology), plant physiology and cell biology, environmental science, plant chemistry and biochemistry, agronomy, molecular ecology, vegetation dynamics, bioremediation, serology, physics, mathematics, bioinformatics, and statistics. Genetics and enhanced breeding of selected crops, and biotechnology, lie at the core of all our substantial research, development, and training programmes.

 The breadth and depth of knowledge, technical expertise, and infrastructural resources available at SCRI attract extensive contracts and consultancies from, and foster

collaborations with, numerous academic and corporate organisations around the world. Synergistic liaisons with other institutes, universities and colleges in the UK and overseas are also integral to the scientific growth, development, and validation of the Institute's research activities. New links are being forged continuously, as well as existing contacts being developed and strengthened.



SCRI and Mylnefield Research Services (MRS) Ltd, the commercial arm of the Institute, are successful in gaining competitive research contracts from government departments and agencies, Levy Boards, grower organisations, international agencies, the European Union, commercial companies, local government, and some Charities, Research Councils, and Trust funds, although we are largely excluded from submitting applications to the latter three sources.



In February 2000, the Mylnefield Trust was registered. The objectives of the Trust are:

- to promote research and scientific work in the life, environmental and related sciences, in particular 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;
- to promote the dissemination of such research.

The Trust will support scientific research at SCRI by making gifts, grants, loans, or payments to the Institute subject to the above objectives being met.



Also in February 2000, Mylnefield Holdings Ltd was established. Mylnefield Holdings Ltd is legally separate from SCRI and MRS Ltd but will obtain licences to SCRI technology and other necessary third-party technology that will enable it to establish spin-out and start-up companies. The new company will transfer money to SCRI and MRS Ltd through royalty and/or milestone payments.



SCRI provides the base and secretariat for The Scottish Society for Crop Research (SSCR), a registered Friendly Society formed in 1981 by the amalgamation of The Scottish Society for Research in Plant Breeding and The Scottish Horticultural Research Association.

The SSCR provides an important link between SCRI research scientists and farmers, growers, processors and other interested companies in the private sector.

The Society:

- organises interactive field walks and end-user/researcher discussion sessions;
- finances science-based advisory publications for the benefit of its members;
- stimulates crop-based sub-committees to support targeted research projects ;
- reinforces SCRI representation with trade associations, Levy Boards, and other user-groups;
- administers the biennial Peter Massalski Prize to the most promising young scientist at SCRI.



SCRI is one of five Scottish Agricultural and Biological Research Institutes (SABRIs: Scottish Crop Research Institute; Hannah Research Institute; Macaulay Land Use Research Institute; Moredun Research Institute; Rowett Research Institute); and together with the Royal Botanic Garden, Edinburgh; the Scottish Agricultural College (SAC); the Scottish Agricultural Science Agency (SASA); the Fisheries Research Services; and Forestry Commission Research Agency, comprise the Committee of Heads of Agricultural and Biological Organisations in Scotland (CHABOS).



BioSS was established to cover the biomathematical and statistical needs of the five SABRIs and SAC. High-level consultancy, training and research inputs from BioSS give a major advantage to the SABRI and SAC research programmes, as well as to the work of SASA and several other bodies for whom it carries out contracts.



This Report details a small selection of the recent research achievements of SCRI, BioSS, and MRS Ltd, briefly describes the commercial rôles and successes of MRS Ltd, and summarises the important linking rôle of SSCR. Significant advances continue to be made in both fundamental and strategic science, with contributions to the protection and understanding of the environment. SCRI contributes to the debate on genetically modified crops, providing independent and unbiased information on this important subject. Discoveries are reported of direct and indirect benefit to agriculture, horticulture, forestry, land management, and biotechnology. Dedicated and talented scientific and support staff in the Institute, BioSS, and MRS Ltd, account for our stature, successes, and delivery of achievements.

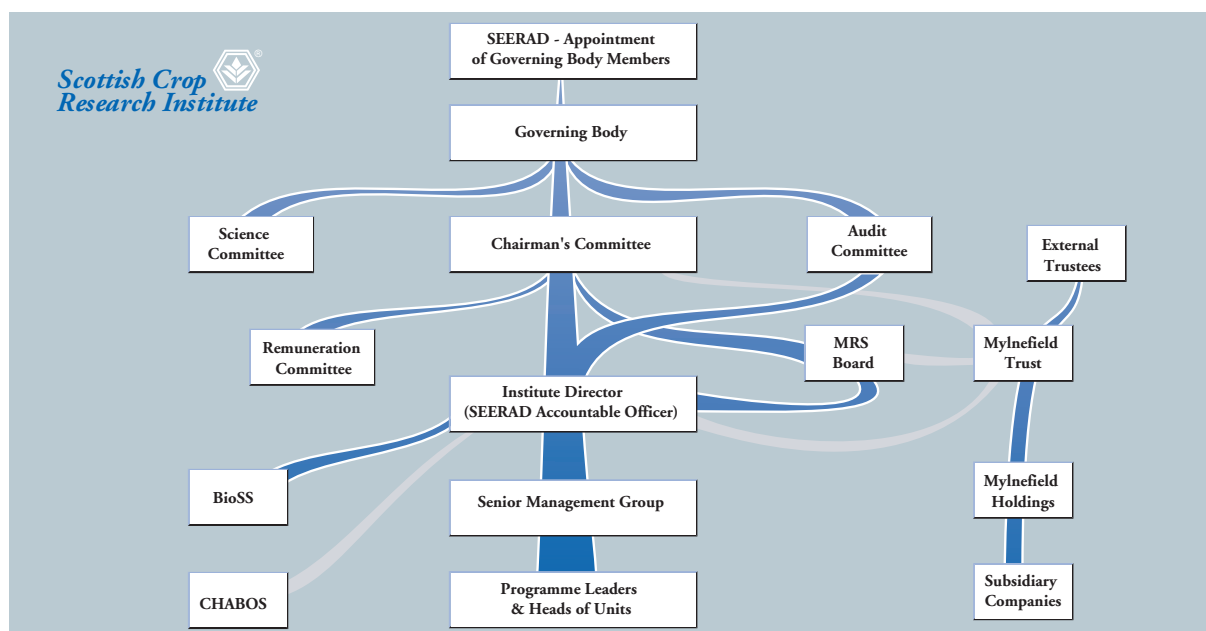



Figure 1 SCRI company and committee structure.

Details of the annual accounts, Corporate Plan, health and safety provisions, and the SCRI/MRS quality-assurance arrangements are available on request. Figures 1 and 2 illustrate the SCRI company and committee structure, and the management structure.

 On behalf of the staff and Governing Body, it is a pleasure once again for me to acknowledge with gratitude the staff of SEERAD for their continuing support of, and

demonstrable commitment to, our research programme and to our development. Grants, contracts, donations, advice, and joint participation in our activities from the SSCR, other government departments and their agencies, non-governmental agencies, our sister CHABOS institutions, and BBSRC institutes with whom we coordinate our research, grower levy boards, local and regional authorities, commercial companies, farmers, and other individuals, and learned societies, are also warmly appreciated.

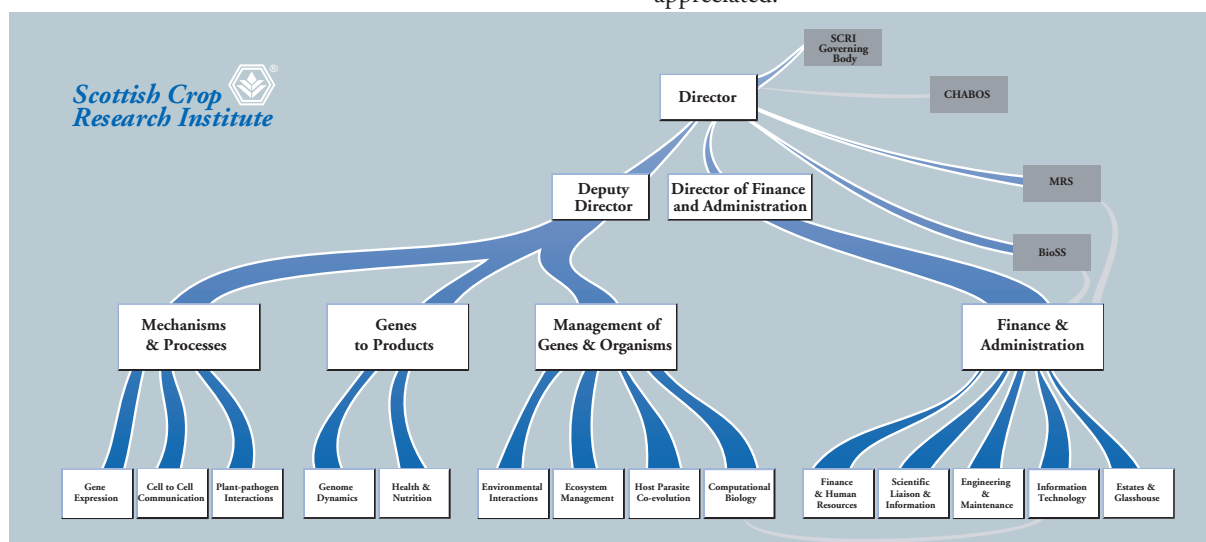


Figure 2 Institute management structure.