

SCRI Research Programme

ongoing as at 1 October 2008

The research programme is commissioned by RERAD (Scottish Government: Rural and Environment Research and Analysis Directorate) and a variety of other funders. The list contains the body that awarded the grant and the title of the project and, in the case of RERAD, the commissioning number.

RERAD Core – Programme 1

Workpackage 1.1	Barley Genetics
Workpackage 1.2	Potato Genetics
Workpackage 1.3	Soft Fruit Genetics & Pathology
Workpackage 1.4	Barley Pathology
Workpackage 1.5	Potato Pathology
Workpackage 1.7	Sustainable Crop Systems

RERAD Contract Research Funding

SSCR/913/05	Characterisation and development of gene silencing in <i>Phytophthora infestans</i> for high-throughput determination of gene function.
SCR/915/06	Limiting the risk from <i>Phytophthora idaei</i> to the Scottish raspberry industry.
SCR/918/07	Genomics-assisted dissection of barley morphology and development.
SCR/919/07	<i>Dickeya dianthicola</i> – a threat to Scottish seed potatoes.
SCR/920/08	Sequencing the ‘gene space’ of potato chromosome 4, comparative analysis with tomato and development of a gene-based mapping platform.
BSS/845/06	Epidemiology, population, health and infectious disease control.

External research contracts

Agro-Transfert	Development of MAPP for the French market.
Biotechnology and Biological Sciences Research Council (BBSRC)	Visualisation and analysis of biological sequences, alignments and structures.
BBSRC (CSI)	Optimising wheat grain shape for improved processing quality.
BBSRC (CSI)	Exploiting the <i>Phytophthora infestans</i> genome to identify gene targets for sustainable potato protection.
BBSRC (CSI)	The establishment and application of a forward genetic resource for the development of efficient breeding strategies in grass and cereals.
BBSRC LINK	Association genetics of UK elite barley.
BBSRC LINK	Role of inoculum sources in <i>Rhynchosporium</i> population dynamics and epidemics on barley.
BBSRC LINK	Testing trophic–functional relationships for modelling farmland diversity and functional dynamics.
BBSRC (via John Innes Centre)	Chemical interrogation: a new ‘systems’ approach to starch metabolism in germinating barley seeds.



Bioforsk	Systems experiments.
British Council	Analysis of the interaction between the pine wood nematode <i>Bursaphelenchus xylophilus</i> and the maritime pine <i>Pinus pinaster</i> .
British Ecological Society	Relationship between plant and soil microbial communities in different successional stages of <i>Abies pinsapo</i> Bioss. fir forests.
British Ecological Society	Sniffing out trouble: does the clay coloured weevil avoid leaves producing 'SOS' signals?
Chest, Heart & Stroke (via University of Dundee)	Cardiovascular function and intake of soft fruit: effect of qualitative and quantitative variation in berry antioxidant status.
Commercial	Brassica breeding.
Commercial	Soft fruit analysis.
Commercial	Potato breeding.
Commercial	Blackcurrant breeding.
Commercial	Lipid analysis.
Department for Environment Food and Rural Affairs (Defra)	Crop physiology.
Defra/HGCA	GREENGRAIN: Genetic reduction of energy use and emissions of nitrogen in cereal production (LINK).
Defra/RERAD	Integrated pest and disease management for high quality protected raspberry production.
Engineering and Physical Sciences Research Council (EPSRC)	Novel approaches to networks of interacting autonomes.
European Union (EU)	ALARM project.
EU	BIOEXPLOIT: Exploitation of natural plant biodiversity for the pesticide-free production of food.
EU	EURASNET: European alternative splicing network.
EU	EU-SOL: High quality solanaceous crops for consumers, processors and producers by exploration of natural biodiversity.
EU	DEVELONUTRI: Development of high throughput approaches to optimise the nutritional value of crops and crop-based foods.
EU	BARLEYBREAD: European guideline for healthy high fibre/low salt baking process based on the use of European barley.
EU	GENBERRY: European small berries.
EU	SPICY: Smart tools for prediction and improvement of crop yield.
EU	Triticeae Genome: Genomics for <i>Triticeae</i> improvement.
EU Marie Curie	Role of arbuscular mycorrhizal fungi on the accumulation of radiocaesium by plants.
EU Marie Curie	Managing insecticide resistance in aphids in Scotland.
European Science Foundation	Exploiting genomics to understand plant–nematode interactions.
Food Standards Agency (via John Innes Centre)	Development of a standard, validated procedure for the isolation of transgene flanking regions in GM crops and detailed analysis of transgene insertion.
French National Institute for Agricultural Research (INRA)	Global change at the microbial scale – effects of climate change on microbial decomposition and modulation of physical structure of soil.
Home-Grown Cereals Authority (HGCA)	BRIDGES: Breeding of wheat for resilience, improved distilling quality and greater environmental stability.

HGCA	Fungicide performance information for barley growers.
Horticultural Development Council (HDC)	Developing techniques to manage raspberry leaf and bud mite in tunnel produced raspberry.
HDC/RERAD/Commercial	The breeding and commercial development of new raspberry varieties.
International Atomic Energy Agency	Barley mutation grid.
International Maize and Wheat Improvement Center (CIMMYT)	Genomic dissection of tolerance to drought stress in wild barley.
Ministerio de Educacion y Cienca (CICYT) in Spain	Study of the effect of the treatment with methyl jasmonate on the bioformation of chiral volatile compounds in vegetal foods.
Nairns	Knowledge transfer partnership.
Natural Environment Research Council (NERC)	Strategies to manage toxic cyanobacterial blooms in lakes: remote sensing, modelling and cost benefit analysis.
NERC (via University of Stirling)	Microbial diversity in Antarctic soils.
Potato Council	Survey of GB blight populations.
Potato Council	Review of umami in potato.
Potato Council	Independent variety trials.
Potato Council	Extending the scope of modern potato diagnostics and their interpretation.
Royal Society	Genetic control of lateral root development stimulated by rhizosphere nematodes.
Royal Society	Transcript profiling of meristem activation in potato using the POCl microarray.
Royal Society of Edinburgh	RSE/Scottish Executive Personal Fellowship.
Royal Society of Edinburgh	RSE International Exchange Programme.
Rural Development Administration of Korea	Development of manipulation techniques of plant viruses for the development of multiple virus resistant horticultural crops.
RERAD/HDC	Developing a marker-assisted breeding toolkit for premium sensory characters in raspberries.
Scottish Enterprise	Additive-free treatments for shelf-life extension of minimally processed foods.
Scottish Enterprise	EnPrint.
Scottish Enterprise	Heath pea: development of a natural appetite suppressant.
Scottish Enterprise	Use of pathogen-derived inhibitors to delay plant senescence and to increase and widen plant transformation efficiency.
Scottish Enterprise	LEAF: Legumes for an energy efficient and environmentally friendly European agriculture.
Scottish Government	Reconnaissance survey of Irish potato in Malawi.
Scottish Funding Council (SFC)	Scottish Bioinformatics Research Network (SBRN) maximising bioinformatics infrastructure for Scottish Health, Agriculture and Industry.
Teagasc	Development of metabolomics based methods to benefit marker assisted breeding in perennial ryegrass.
Trans-Antarctic Association	Dry valleys ecosystem functioning.
University of Nottingham	Biofortification of wheat with selenium through agronomy and genotype selection to increase human dietary intake (LINK).
United States Department of Agriculture	Contribution to biological, virulence and molecular characterisation of <i>Globodera pallida</i> from Idaho.