Mission and Vision

SCRI is Scotland's leading centre for research on plants and the way they interact with the environment, particularly in managed ecosystems. Our research and products are internationally recognised.

Our mission is to conduct excellent research in plant and environmental science.

Our vision is to deliver innovative knowledge, products and services that enrich the life of the community and address the public goods of sustainability and high quality and healthy food.

We will achieve our vision by developing a culture that promotes and supports scientific curiosity and celebrates the contribution of all staff and students.



What drives us?

- Tackling environmental change
- Creating wealth and health
- Valuing and utilising biodiversity
- Using natural resources sustainably
- Communicating our science responsibly helping others do the same

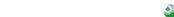
Our science programmes leaders:

Genetics - Professor Robbie Waugh Plant Pathology - Dr Lesley Torrance Plant Products and Food Quality - Dr Derek Stewart Environment Plant Interactions - Professor Philip White









SCRI MRS

The SCRI Group:

BioSS

University of Dundee Division of Plant Sciences

www.scri.ac.uk www.mrsltd.com www.bioss.ac.uk www.lifesci.dundee.ac.uk/ps www.knowledgescotland.org

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Peter Gregory

- Chief Executive and Institute Director

We live in challenging times. As SCRI was shaping its new Science and Operational Strategy, the world was entering a major economic downturn. Evidence of global environmental change is becoming clearer. Population growth is also a global issue, with the demand for food expected to increase by 50% in the next 20 years.

SCRI is Scotland's contribution to the search for solutions to these seemingly intractable problems.

Our science continues to deliver new knowledge, products and services in response to the questions asked by our customers and society more generally. Our links internationally, and with universities and other research organisations nationally, are strong and enable us to undertake world class research and to transfer our results to multiple potential users.

We are working closely with the Scottish Government's Rural and Environment Research and Analysis Directorate (RERAD) and the food and drink industry.

> We believe we have a major part to play in Scotland's future...and the global endeavour to adapt to a changing environment.



Environmental

Change

SCI How our science programmes deliver to the themes that matter to us all...

SCRI's 'Ben' series of blackcurrant varieties make up 95% of the UK crop and 50% of all the blackcurrants grown in the world.

SCRI's commercial wing has signed agreements with more than 20 fruit growers in Spain allowing them to use our successful Glen Lyon raspberry variety.

Genetics

Genetics of water and nutrient use

Gene expression responses to environmental change

Adapted cultivars Germplasm collections

comparative genomics

Effects of abiotic stress on host

Biochemical and functional data

Breeding for environmental change

Genome sequencing of pathogens and

Pest and pathogen epidemiology and

Wealthier & Healthier

Gene mapping and markers Industrial partnerships Cultivars to meet market needs Breeding for improved nutrition

New cultivars with disease resistance

Plants as sources of high value proteins

Pest and pathogen management

Biodiversity

Evolution and biodiversity of crop

Research and exploitation of germplasm

Molecular tools for the characterisation and monitoring of biodiversity Diversity of native species

Development of disease resistant crops

to decrease pesticide inputs

Sustainability

Mapping and markers for reduced

Reductions in the environmental footprint of production

Genetics of new cropping systems Genetic responses to environmental

Development of sustainable crop

Integrated pest and disease

Pest and pathogen epidemiology and

Sustainable crop production methods

production systems

population dynamics

Genetics of durable disease resistance

Communications

Crop Open Days Explaining Biodiversity UK and world crop networks Industry partnerships and briefings Scientific and popular publications

Women in Science Technology

Communicating science through art

Engineering and Maths

Potatoes in Practice

Cereals in Practice

Fruit for the Future

LEAF Open Farm Sunday

International partnerships

Europe-wide initiative to understand gene flow in agricultural ecosystems.

We coordinate a

An independent economic impact assessment of SCRI Group's technology transfer indicated a return to the UK economy of £160 million per annum.

> Every pound of public money returned to the times over.

invested in SCRI is economy twelve

SCRI Group is developing bread the risk of heart

containing 20% barley, which has been shown to reduce cholesterol and cut disease.

Plant Pathology

SCRI research is helping to improve wheat for grain distilling and to use less nitrogen fertiliser.

Plant Products & Food Quality

We have a new spin-off company alled EnPrint that uses up-to-the minute technology for testing water quality.

Interactions

Vales Sovereign potato, bred at SCRI and commercialised by Greenvale AP, was voted Tesco fresh produce Best New Variety.

Impact on fruit quality

Efficient resource use

Reduced greenhouse gas emissions

Improved rooting for problem soils

New crops and cropping systems

Plant ecophysiology and adaptation

Preservation of fragile ecosystems

Carbon sequestration in soils

Biochemical consequences of climate

molecular biological techniques Work on bioactives Phytochemicals Food processing Plant products Tasting panels

Metabolomics, biochemical and

Assessment and utilisation of biodiverse

High throughput phenotyping Crop diversification

Agricultural regimes and quality impacts Whole crop utilisation Food chain nutrient loss

Cereals in Practice Fruit for the Future Potatoes in Practice Royal Highland Show Advanced Higher days

Integrating food and health

Living Field Royal Highland Show LEAF/Balruddery Open Days Potatoes in Practice

Teaching (schools, universities &

Decision support tools

Sustainable soil management Efficient use of resources

Recycling of urban wastes Micronutrient fertilisers for mineral biofortification

EnPrint® environmental monitoring Diagnostic testing

Assessments of plant biodiversity Biodiversity and ecosystem function Soil biology, structure and function Impacts of crop management on

Molecular ecology of wild plants

Agroecological impact assessments Soil and water quality indicators Soil restoration and slope stabilisation New crops and cropping systems LEAF/Balruddery platforms

Resource use efficiency

