

#### SEFARI is a collective:















## Theme 2- Productive and Sustainable Land Management and Rural Economies



- Strengthen the performance and sustainability of agricultural systems in Scotland
  - provide the science needed to improve efficiency of food production.
  - protect the environment, rural communities and animal welfare.
- Deliver the tools, science, concepts and approaches needed to support the Scottish Government's strategies and policies:
  - productive and sustainable management of rural economies.
  - application and demonstration in rural communities and environments.



#### WP2.1 Aim

- Improving the productivity and sustainability of farming by
  - improving crop genetics and the prevention and control of important plant pests and pathogens
  - new breeding strategies and new and improved detection and control methodologies for pests and pathogens
  - in partnership with plant breeders, growers and government.

#### **WP2.1 Outcomes**



- Crop cultivars and varieties with improved quality, yield and resource efficiency, resilient to key biotic and abiotic stresses.
  - Focus on barley, potato and soft fruit
- Integrated Pest Management
- More efficient production systems, healthier soils and sustainable rotations
- Potential of novel and minor crops
- Underpinned by resources and technologies:
  - germplasm and pest collections, computational analyses, modelling, diagnostics and metagenomics.

### Science with impact



- SRP research in most cases does not stand alone underpins and leverages
- Harnesses wide range of capabilities across SEFARI
- Needs of stakeholders change: legislation, commercial opportunities, new threats etc.
  - SRP needs to be responsive
- Outcomes and impacts may not always be immediate often cumulative
- Pipeline from science to uptake
- Continued stakeholder input is vital to identify need and ensure uptake
- RESAS mid-term review of progress
- Report produced focus on outcomes & impacts

# Aim of today outcomes/impacts & future direction



- Barley genetics: science excellence to economic impact (Luke Ramsay)
- A potato pipeline gene discovery to deployment (Glenn Bryan)
- Soft fruit genetic improvement (Rob Hancock)
- Diagnostics and monitoring (Jennie Brierley)
- Impact of late blight research (Siobhan Dancey)
- Ramularia leaf spot (Francois Dussart)
- Integrated management of pests and pathogens (Henry Creissen)
- Increasing protein production and utilisation (Madelina Neacsu)
- To hear your views