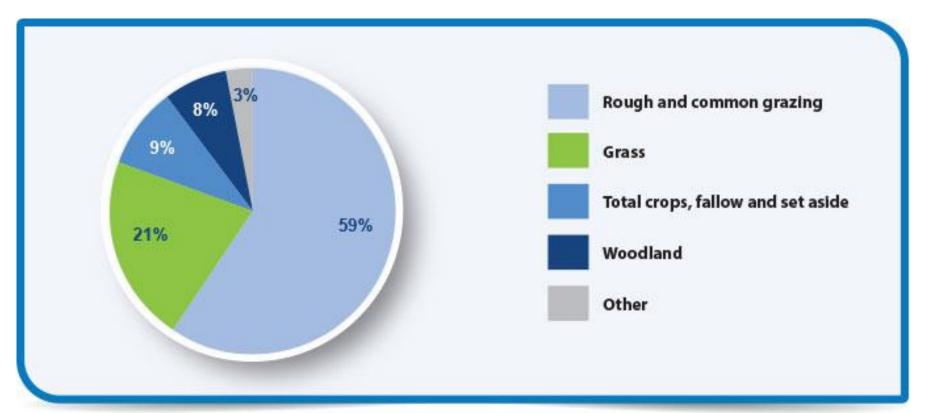
### Sector: Agriculture





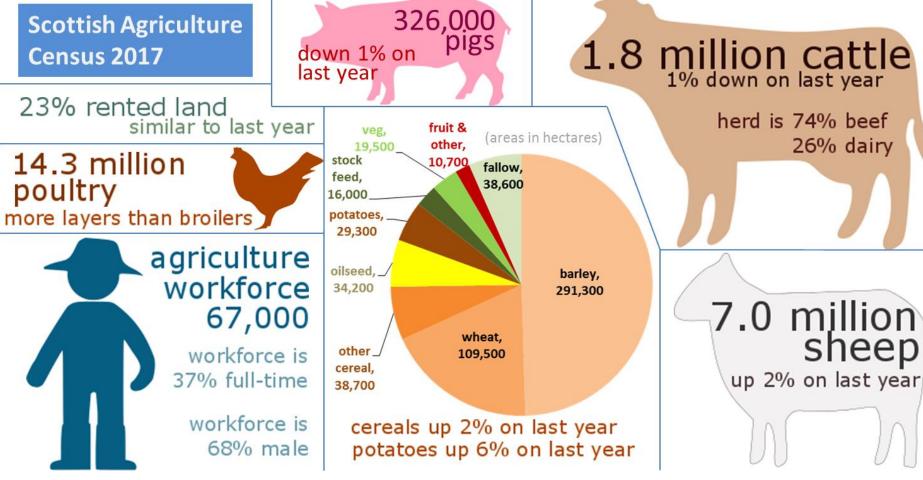
## Grass is the dominant crop by area – differing knowledge bases



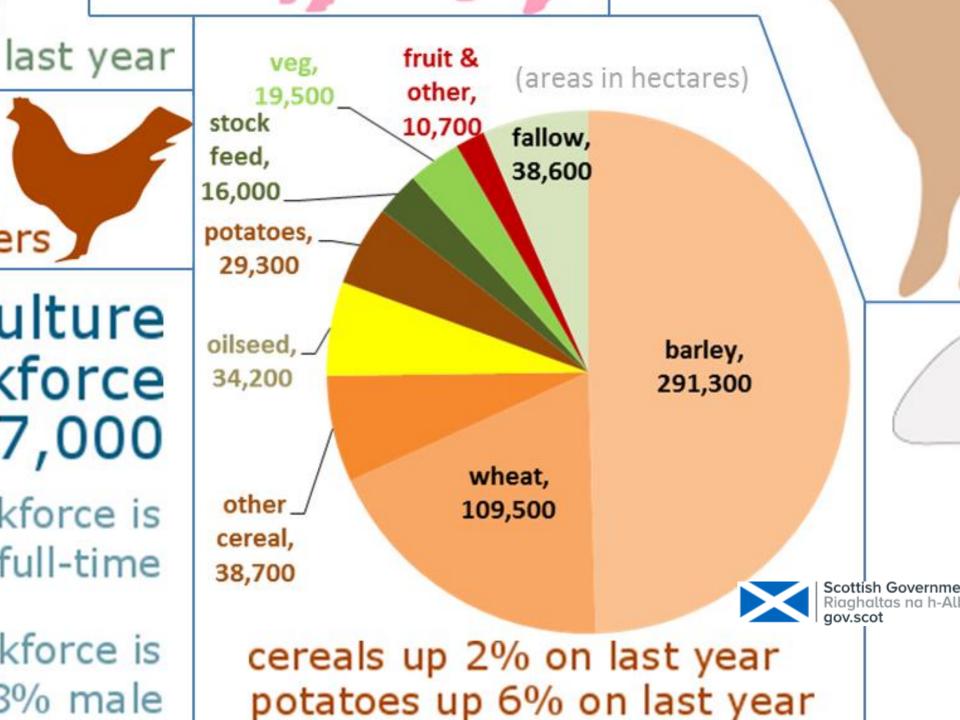




Barley is the major combinable crop

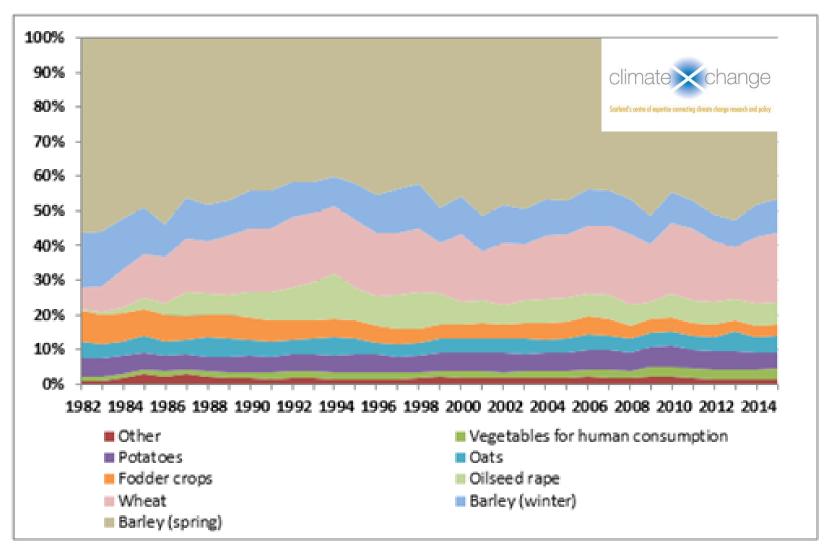






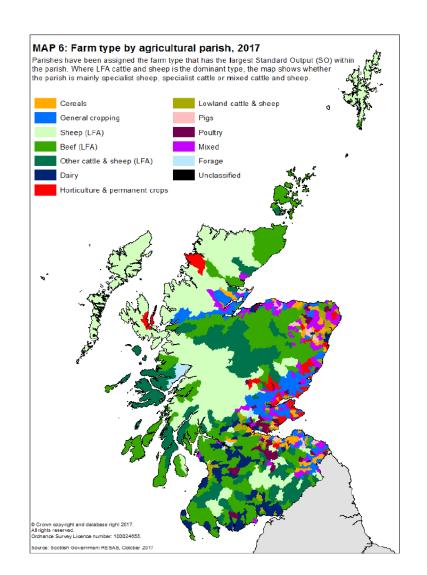






## High yielding, high quality crops Sensitive environment / extremes of weather



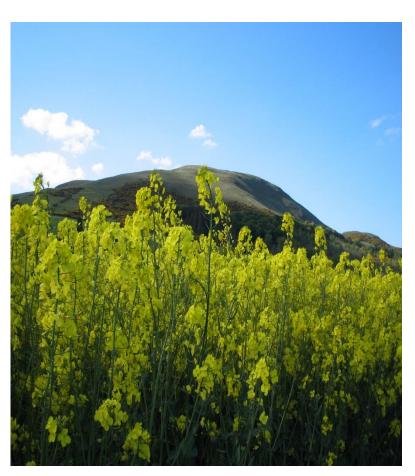




#### Issues particular to us



- Intensive crop production
- 'Challenging' weather
- Differing cropping profile
- Fewer break crop options
- Differing health status to rest of UK
- High level of inputs
- High selection pressure
- Strategic use of pesticides, commensurate with high yields
- Land free of PCN or clubroot is a diminishing resource



# Clean land a diminishing resource







#### New threats

## Natural migration/ climate change / global trade in produce and seed



Black stem rust



Photo Credit: Dave Hodson, CIMMYT

Zebra chip



Photo credit: Potato Grower Magazine



### Drivers and opportunities

### Global challenges / Rapid technical change



Increased demand for food and ecosystem services



Increased need for sustainable and efficient production



Advancements in capability

## Innovative solutions - but some solutions more acceptable than others











### Mind the gap....



#### Issues raised by stakeholders

- Efficient and sustainable production
- Increased yield and quality of crops
- Perception that the loss of solutions is outstripping the arrival of new solutions
- Product losses legislation / resistance
- Limited options in minor crops
- Food safety issues such as ergot and mycotoxins
- Integrated Pest Management
- Reduced reliance on pesticides
- Increased technology
- New crops / rotations

#### **Context**

- Public care about food production
- Tensions: cheap food v sustainably produced food
- Perceptions and attitudes key
- Growers locked into in production systems
- Broadest possible view of solutions
- Some are more acceptable than others
- Integrated thinking
- Solutions impact on other sectors
- Solutions could be applicable to other sectors (ag tech / chem industry partners)
- Communication and collaboration are core please get in touch fiona.burnett@sruc.ac.uk