



UK summary

Ruth Digby, Crops and Seeds Adviser
National Farmers Union www.nfuonline.com

Dr. Penelope Sparrow, Crop genetics
John Innes Centre www.jic.ac.uk





5 main crops in UK

Winter Wheat

- Area: 1.94 million hectares. Production: 14.9 million tonnes.

Winter Barley

- Area: 921,000ha (down by 19% on 2009). Production 5.3 million tonnes.

Winter Oilseed Rape

- Area: 642,000 hectares. Production: 2.2 million tonnes

Potatoes

- Area: 138,000 hectares (down 6000ha on 2009). 6 million tonnes produced

Sugar Beet

- Area: 119,000 hectares. Production: 6.5 million tonnes (down 23% on average due to damage by severe cold followed by rapid warming).



Key Agronomic Challenges

- Foliar and root diseases
 - Septoria; Rusts; Phoma; Blight; Take All; Root rots
- Pests
 - Slugs
 - Nematodes
 - Aphids and beetles
- Weeds
 - Resistant grass weeds



Other challenges

- “Produce more, impact less”
- Cost of inputs
 - Nitrogen
- Regulation
 - Water Framework Directive
 - Crop protection products approval



On-going biotechnology research

Research Institutes and Universities: looking at a range of biotech approaches to yield improvement; nutritional/quality improvement etc.

Research at the field trial stage

1. The Sainsbury Laboratory, Norwich

On-going field trial of GM potatoes resistant to late blight

2. Leeds University

On-going field trial of GM potatoes resistant to nematodes

3. Rothamsted Research

Field trial application recently approved for GM wheat that repels aphids





UK farmers experience of GMOs

No commercial GM crops

- In 2000 field scale evaluation project: impact on weeds, insects and birds of GM sugar beet, oilseed rape & maize

Concerns

- Availability and price of animal feed
- Uncompetitive against other countries
- Losing other research and breeding programmes



UK Scientists experience of GMOs

6 field trial applications authorised since 2006

- BASF potato trials vandalised in 2007
- University of Leeds trials vandalised 2008
- Rothemsted wheat application recently approved

Security needed for field trials

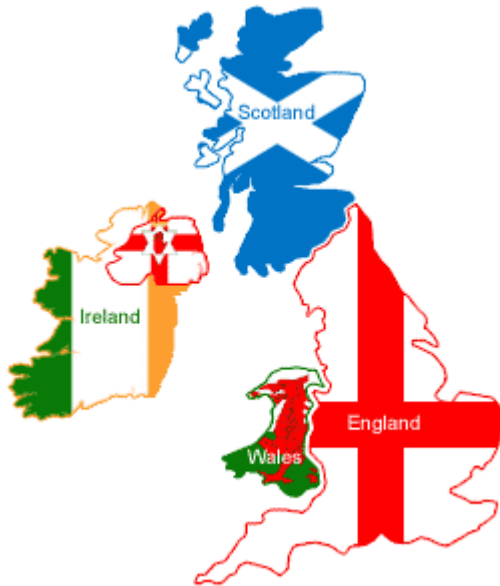
- 2010 trial at the Sainsbury Laboratory in Norwich:
3 metre high cage, alarm system, lighting and CCTV coverage: (additional cost to the grant of £70,000)



UK policy on GMO

UK agricultural policy is devolved, therefore there are 3 policies in UK

1. **Scotland:** opposed to the cultivation of GM crops
2. **Wales:** 'One Wales' commitment to maximise restrictions on GM crops.
3. **England:** New coalition government statement on GM “science based and proportionate”





NFU position



- Science, research and new technologies, including GM, are vitally important to enable British farmers to produce more and impact less
- There must be choice for all farmers to access the benefits enjoyed by their competitors overseas
- All farmers and growers must be able to maintain their chosen markets, whether GM, conventional or organic
- Policies and legislation must be based on robust science and not emotions and politics