

## **Food Security Strategy Advisory Panel: Wheat research group**

### **Remit**

The working group is asked to advise on the challenges on which BBSRC should focus its attention and resources, in order to maximise both the scientific and economic and social impacts of the wheat research the Council supports:

by exploiting scientific opportunities:

- existing strengths and distinctive capabilities of the UK wheat research community;
- availability of new and emerging technologies and resources;
- potential to add value and extend reach through collaboration with international partners;

to address user needs:

- balancing current concerns (“what the industry wants now”);
- with longer-term requirements for sustainable food supply (“what society will need in future”);

having regard to:

- the contribution of wheat research to BBSRC’s research portfolio and strategic priorities;
- the respective roles of research institutes and universities;
- the balances between:
  - outcome-oriented research and underpinning science;
  - genetics/genomics and agronomy/agroecology;
  - generation of resources and characterisation of traits;
  - optimisation of yield/sustainability/profitability;
- the significance of wheat as a UK and international crop;
- the role of agriculture in its wider ecological and environmental context;
- the differing requirements of the UK and less-developed countries.

### **Membership**

Professor Sir David Baulcombe FRS, University of Cambridge (chair; FS SAP member)  
Professor Richard Bardgett, Lancaster University  
Dr Malcolm Crabtree (FS SAP member)  
Dr Sam Millar, Campden BRI  
Professor Graham Moore FRS, John Innes Centre  
Dr Kay Simmons, USDA-ARS  
Dr David Swarbreck, The Genome Analysis Centre  
Dr Scott Tingey, DuPont  
Professor Robbie Waugh, James Hutton Institute

### **Key questions**

1. What are the principal wheat research challenges on which BBSRC should focus its attention in order to address (a) current and emerging needs (up to ten years) and (b) likely future requirements (ten to twenty years and beyond)?
2. What new or emerging scientific opportunities should be exploited to address those challenges?
3. What current or likely future barriers will need to be overcome in order to address those challenges?

4. Is the scope and balance of the current portfolio of BBSRC-funded wheat research appropriate? If not, should it be broader (if so, where are the gaps?) or more narrowly focused, or does it need to be rebalanced? Why?
5. Is the current level of BBSRC expenditure on wheat research appropriate? If not, should it be increased or reduced? Why?
6. What opportunities exist for wheat research to benefit from or contribute to other areas of science through synergies with studies of (a) other crops or (b) other aspects of food security research such as soils, agri-ecology, nutrition *etc*?
7. What opportunities exist to add value to BBSRC's investment in wheat research through new collaborations and partnerships, particularly internationally?
8. What should be BBSRC's aims and criteria for supporting current or proposed multi-national wheat research programmes such as the International Wheat Initiative and Wheat Yield Consortium?
9. What could BBSRC do to communicate more effectively the aims and achievements of UK wheat research in order to enhance and extend its impact?