



The Food Advanced Training Partnership

Using blended learning to develop future leaders for the food industry

Dr Richard Frazier
Director of the Food ATP

This talk



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- What is the Food ATP?
- What is our purpose?
- Why blended learning?
- How have we done it?



Advanced Training Partnerships



The Food Advanced Training Partnership

- Funded by BBSRC (Biotechnology and Biological Sciences Research Council) for 5 years
- Agri-food industry focused
- Modular postgraduate training and research
- Delivered by collaborative partnerships
- Delivery of skills to tackle major challenges of:
 - sustainability, energy use reduction, water shortage, waste reduction, climate change, population growth, ...

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- **University of Reading** – expertise spanning the food chain including agriculture, horticulture, food science & technology, nutrition and consumer science
- **University of Birmingham** – expertise in food engineering and food safety
- **Rothamsted Research** – innovators in science underpinning environmentally sustainable solutions for crop productivity and quality
- **Leatherhead Food Research** – independent research and training organisation delivering innovation, scientific consultancy and regulatory guidance and interpretation

Our goals

- To develop the skills to drive forward innovation and strengthen competitiveness in the food industry
- To support and accelerate individual professional career development

What industry wants ...

- Training requirements are exceptionally broad
 - ‘Without boundaries’ approach across skills silos
 - Development of future leaders
- Modular training
 - Flexibility
 - Standalone modules that can build towards formal qualifications
 - Balance study with existing work commitments

How do we achieve this?

- Distance learning
 - Video lectures
 - Guided reading
 - Discussion boards
 - Self-assessment quizzes
- Study week
 - Interactive group work
 - Workshops
 - Class debates
- Assessment
 - Group work during study week
 - Individual assignments



Example

- Sustainable supply systems
- 10 credit module
- Distance learning via Blackboard for 4-6 weeks
- Intensive study week: 4 days
- Post study week assignment

Distance learning materials



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University of Reading

Blackboard Learn

Richard Frazier | My Places | Help | Logout

School of Chemistry, Food & Pharmacy | Enrolments | Fileshare | E-Learning Support

Sustainable Supply Systems | Learning materials

Sustainable Supply Systems

Announcements

Learning materials

Discussions

Learning materials

Food, feed or fuel?
Carol Wagstaff introduces the pressures that growing populations, climate change and competition from biofuels present to the global food supply chain.

Dairy cow nutrition and its influence on milk quality and yield
Ian Givens provides an insight into how nutrition of dairy cows can affect the quality of their milk and the effects this can have on yield.

Climate change and the future for agriculture
Tom Osborne provides an insight into the impacts that climate change may have on agriculture and global food production.

The water cycle: past, present and future
Andrew Wade describes how the water cycle has changed over time and how human activity and other factors may influence it in the future.

Ecosystem services and their role in sustainable agriculture
Simon Mortimer explains ecosystem services and how they can support and contribute to sustainable agriculture.

Sustainable poultry production: myth or reality?
Caroline Rymer launches the debate into poultry production and whether or not it can be said to be truly sustainable.

Video lectures



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Introduction to food, feed or fuel? - video lecture

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- [Introduction](#)
- [Watch the video lecture](#)
- [Download the slides](#)
- [Next steps](#)

Introduction

In this topic, you'll learn how increased demand for crops to feed the world's increasing population; as feed for livestock; and as a feedstock for biofuels; is putting increasing pressure on natural resources. The topic explores how, in the context of climate change, these pressures combine to create a 'perfect storm' that will require changes to current agricultural practices to be avoided.

The video lecture below will introduce some of the key points in the topic. The slides from Carol's lecture are also [available for download](#). Once you've watched the video, you can navigate to the other learning materials in the topic using the [Table of contents](#). The guided reading page contains links to articles and papers relating to the topic. Once you've built up your knowledge you can take the test to assess your understanding. You'll find more information on how to take the test on the [Introduction to the knowledge test](#) page.

Video lecture



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Guided reading



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Guided reading - Food, feed or fuel?

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All readings are available online by clicking on the title of each reference.

1. Parfitt, J., Barthel, M. and Macnaughton, S. (2010) Food waste within food supply chains: quantification and potential for change to 2050. *Phil. Trans. R. Soc. B*, **365**, 3065-3081

PDF from Philosophical Transactions of the Royal Society B, copyright The Royal Society.

2. Gregory, P.J. Ingram, J.S.I. and Brklacich, M. (2005) Climate change and food security *Phil. Trans. R. Soc. B*, **360**, 2139-2148

PDF from Philosophical Transactions of the Royal Society B, copyright The Royal Society.

3. Smith, P., Gregory, P.J., van Vuuren, D., Obersteiner, M., Havlík, P., Rounsevell, M., Woods, J., Stehfest, E. and Bellarby, J. (2010) Competition for land. *Phil. Trans. R. Soc. B*, **365**, 2941-2957

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If you have any problems accessing items on this list please contact Jackie Skinner, Food and Nutritional Sciences Liaison Librarian. Email jackie.skinner@reading.ac.uk

Self-assessment



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Take Test: Knowledge test: Food, feed or fuel?

Description

Instructions

Multiple Attempts This Test allows multiple attempts.

Force Completion This Test can be saved and resumed later.

Question Completion Status:

⚠ Moving to another question will save this response.

Question 1 of 4 > >>

Question 1

10 points Save Answer

A 2 deg C average rise in global temperature will result in (tick all that apply):

- ☐ More cultivation of cereal crops in the UK
- ☐ Impossible UK cultivation conditions for wheat
- ☐ A 6°C rise in China
- ☐ A reduction in sea level

⚠ Moving to another question will save this response.

Question 1 of 4 > >>

Discussion boards



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Forum: Sustainable supply chains

Organise Forum Threads on this page and apply settings to several or all threads. Threads are listed in a tabular format. The Threads can be sorted by clicking the column title or the caret at the top of each column. [More Help](#)

Create Thread

Search

Display ▾

Thread Actions

Collect

☐	Date	Thread	Author	Status	Unread Posts	Total Posts
☐	04/07/12 11:03	Think about how climate change might impact your company. Which ingredients/products are most at risk?	Luke Micallef	Published	1	1
☐	20/06/12 13:10	Since about 1990, more people consume semi-skimmed milk than full fat milk. Discuss the long term benefits or risks to cardiovascular disease associated with this food choice.	Luke Micallef	Published	2	2
☐	20/06/12 13:01	Importing food from where it is in season in the globe is more sustainable than growing similar products in the UK	Luke Micallef	Published	1	1

Thread Actions

Collect

The study week



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- Structured to include active learning
- Example day:

Time	Activity	Topic	Tutors
09-00 – 10.30	Talk and debate	The challenges of ecosystems services for land and freshwater systems	David Huggett & Mick Hamer, Syngenta
11.00 – 13.00	Talk and debate	The future of fish farming and the potential for sustainability	Dr Ian Pike
14.00 – 17.30	Site visit	CEDAR: University of Reading dairy research unit	Barney Jones

Challenges/opportunities

- Resource!
 - People
 - Time
 - Money
 - Expertise
 - Centre for the Development of Teaching and Learning (CDoTL)
 - Digital Development Team

Tips

- Focus on learning objectives
- Use technology for a specific reason, not for the sake of it
- Keep it simple!
- Seek advice



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- Barbara Mason, Food ATP