

# AgriFood Charities Partnership (AFCP) Forum



**Dr David Elphinstone**  
**Director of Research**



**Myerscough**  
College  
Opportunities for all to succeed



University Centre  
**Myerscough**

**Landex**

Land Based Colleges  
Aspiring To Excellence



# Thanks



# Organisations



Uni. line!



# What is in it for the Land based Colleges?

- Underpin our curriculum with research
- Dealing with 'real industry' problems and developing collaborative links
- Teaching research skills to students
- Using research literature with our students
- Collaboration with Higher Ed Institutions and Research Organisations



# What can Land Based Colleges and Universities offer you?

[The Applied Research and Knowledge Exchange Prospectus](#)

At <http://landex-research.org.uk>



# THE APPLIED RESEARCH AND KNOWLEDGE EXCHANGE PROSPECTUS

## Research with Impact



### STANDARDS IN EQUESTRIAN SURFACES AND PERFORMANCE RESEARCH

RACES is the Research and Consultancy in Equine Surfaces, a world-leading collaboration at Myerscough College, working in



### REDUCING ENVIRONMENTAL IMPACT OF MEAT POULTRY PRODUCTION

Three specific projects at Nottingham Trent University aimed at reducing the environmental impact of meat and poultry production have



### WATER USE EFFICIENCY

For outcomes of 'blue-sky' research that nevertheless has real-world impact, you need look no further than Myerscough College's collaboration with Lancaster University to identify practical



### CONTROL OF BOVINE VIRAL DIARRHOEA (BVD) VIRUS IN LIVESTOCK

Research into BVD carried out by Professors George Gunn and Alistair Stott at SRUC, Professor Claire Heffernan at the University of Reading and

## Specialist Staff and Resources



### GLASSHOUSE RESEARCH FACILITY

Constructed in 2015 at a cost of £400K, Myerscough College's new glasshouse provides a controlled environment for commercial crop production, research and



### NATIONAL CENTRE FOR THE UPLANDS

Covering 71 hectares and with grazing rights to Mungrisedale Common, the National Centre for the Uplands grazes 700 ewes producing 850 lambs annually, and is the only



### ANIMAL MANAGEMENT CENTRE

The Sparsholt College Animal Management Centre (AMC) provides a specialist practical resource for students enrolled on our animal management, veterinary nursing, and



### CANINE THERAPY CENTRE

The Canine Therapy Centre (CTC) is a purpose built, state-of-the-art facility used to support the canine element of Writtle University College's delivery on the MVetPhys, and MSc and BSc in Veterinary

## Graduate Careers



### **STEPHEN JONES – THE DEVELOPMENT OF QUINOA AS A BRITISH FOOD CROP**

Going from a harvest of just 20 tonnes to one of 80 in under 12 months – and with a new food crop – is quite a feat, but it's one that's been achieved by Stephen Jones.



### **DR SHANE ROTHWELL – PLANT-AVAILABLE PHOSPHORUS AND ITS INFLUENCE ON FERTILISER RECOMMENDATIONS**

A Higher National Diploma (HND) in Plant Production and Crop Production



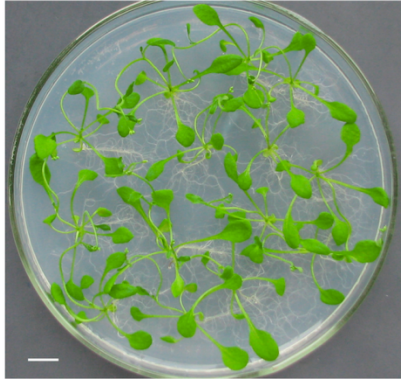
### **WERNER STRYDOM – IMPACT OF STOCKING DENSITY ON THE WELFARE AND PERFORMANCE OF BROILER CHICKENS**

Werner was awarded a first-class BSc (Hons) in Animal Production and Poultry Science

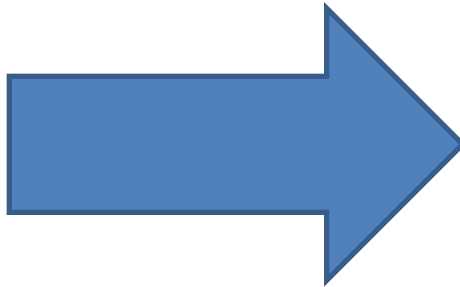




University Centre  
**Myerscough**  
Knowledge Transfer



Col-0



# Knowledge Transfer

Soil heterogeneity  
initiates root [ABA]  
signalling



From the mind of a Genius

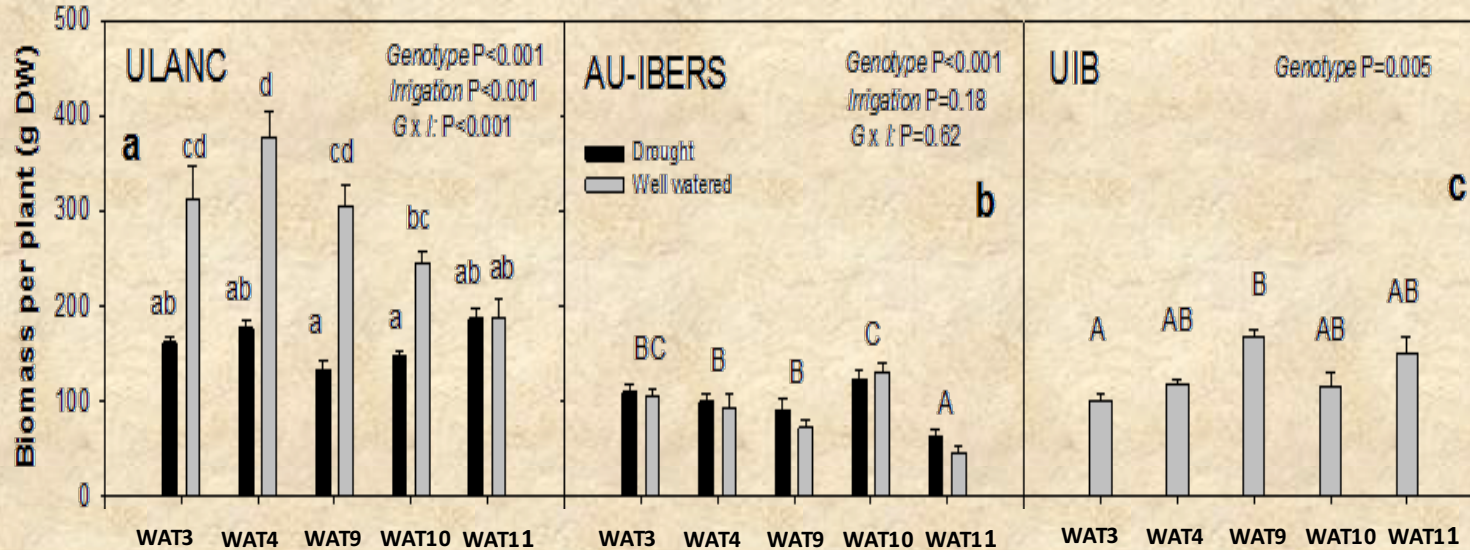


Eh?



To being used by the farmer

# You need practitioners....



Values (mean  $\pm$  s.e.,  $n=10$ ) measured at Myerscough ULANC (a), AU-IBERS (b), and UIB (c), at the end of the second growing season of biomass (a, b, c). The  $p$ -values of a one-way ANOVA for each site, separately are shown within the panel. When the genotype x irrigation was significant plain letters denote statistical differences between each genotype x irrigation combination within site. Otherwise, capital letters denote statistical differences between genotypes (Tukey HSD,  $p < 0.5$ )



# You need to show it works in the field



# Works in the field...



## Treating lettuce with rhizobacteria

TEIJEIRO, R. G., DODD, I. C., **ELPHINSTONE, E. D.**, SAFRONOVA, V. I. & BELIMOV, A. A. (2011). From seed to salad: Impacts of ACC deaminase-containing plant growth promoting rhizobacteria on lettuce growth and development. *Acta Horticulturae*. **898**:245-252



# Works in the field...

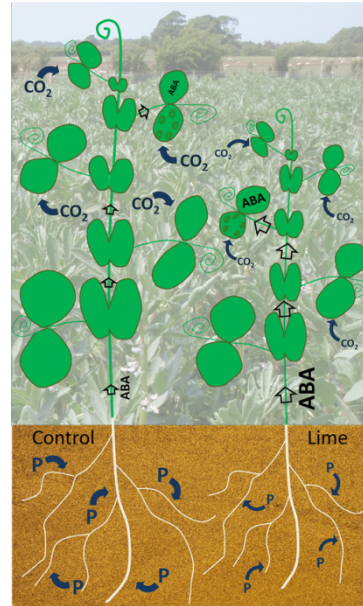
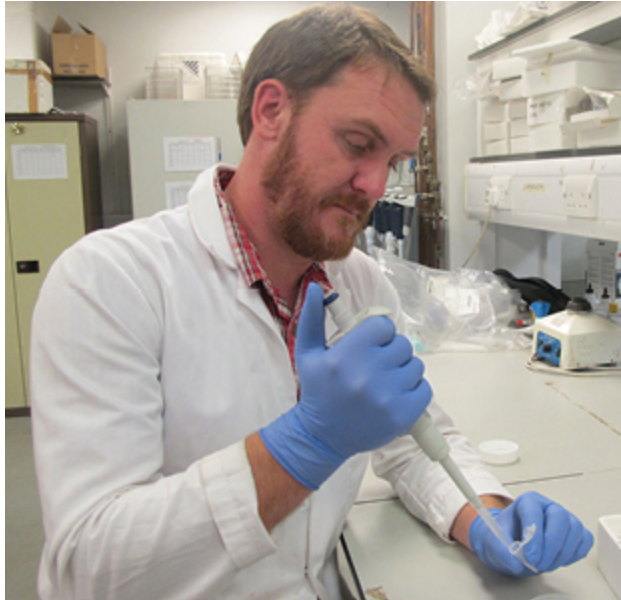


**defra**  
Department for Environment  
Food and Rural Affairs



PUÉRTOLAS, J., BALLESTER, C., **ELPHINSTONE, E. D.** & DODD, I. C. 2014. Two potato (*Solanum tuberosum*) varieties differ in drought tolerance due to differences in root growth at depth. *Functional Plant Biology*, **41**, 1107-1118.

# Works in the field



ROTHWELL, S. A., ELPHINSTONE, E. D. & DODD, I. C. 2015. Liming can decrease legume crop yield and leaf gas exchange by enhancing root to shoot ABA signalling. *Journal of Experimental Botany*, **66**, 2335-2345.

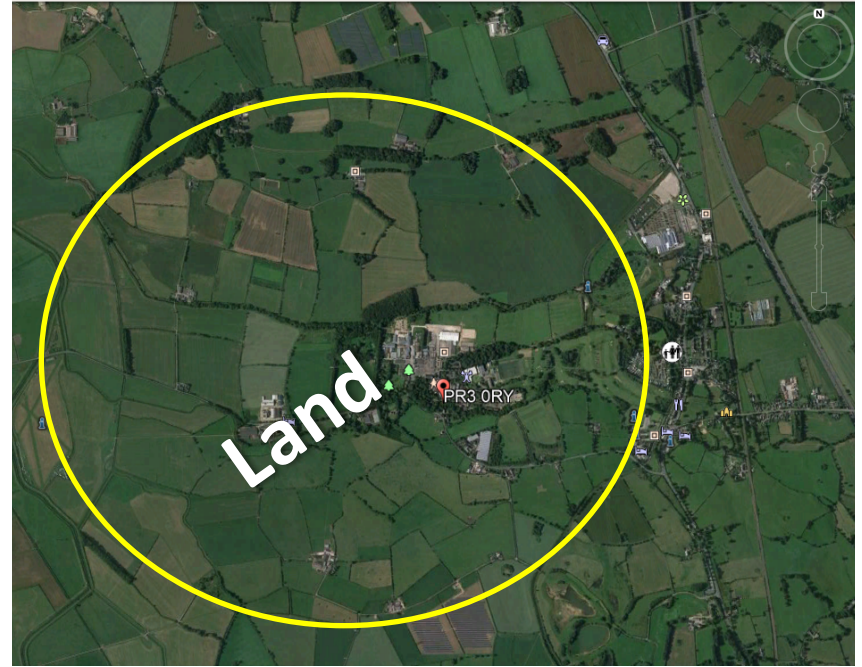


# Works in the Field...



**WESTLAND, A., MARTIN, R., WHITE, R. & MARTIN, J. H. 2017. Mannan oligosaccharide prepartum supplementation: Effects on dairy cow colostrum quality and quantity. *Animal*, **11**, 1779-1782.**

# Research Facilities available





7/17/2017  
2000 2017



Google Earth





# Summary

- Land based Colleges are open for research and Knowledge exchange
- We would welcome an equal playing field for applications
- We could play an important role – post BREXIT

