## Sainsbury Undergraduate Students

## CLAIRE BUSHELL

My enthusiasm for plant science began during my A-level course when I was first introduced to this exciting area of Biology. Since then I have explored my interest further with voluntary work in the Biological Chemistry department at the John Innes Centre. I am particularly interested in how genetics and molecular biology can be used to answer fundamental questions in plant biology and how this knowledge could be applied to future crop improvement, particularly in relation to plant adaptation to biotic and abiotic stresses.

**First Degree** 

BSc Biology University of East Anglia Date due to graduate July 2012

## Sainsbury Undergraduate Studentship (2011)

Vacation Research June - August 2011 University of Exeter Supervisor – Professor Murray Grant

## Summary of Vacation Project

A significant proportion of annual crop losses is due to plant diseases, and in particular fungal pathogens. However some plant-fungus interactions have actually been shown to promote plant growth, possibly by making them immune to infection by other aspiring pathogens. This has significant potential when considering applications for sustainable crop production. This phenomenon will be investigated using a model plant system. *Arabidopsis-Trichoderma* interactions will be explored as a means of improving plant growth. The degree of disease resistance following *Trichoderma* infection will be studied using a number of pathogen tests together with the identification of host genes that are involved in promoting plant growth.

