

# DOUGLAS BOMFORD TRUST

## STUDENTSHIPS

A total of fifteen applications for Douglas Bomford Trust scholarships were received from students at Harper Adams University and shortlisted candidates were interviewed by a panel comprising Nick August and David White as trustees and the secretary Paul Miller on 17<sup>th</sup> November 2016. The standard of the written applications and presentations at the interviews was again very high and as a result of the selection process, five studentship awards were made to the students at Harper Adams University. These were presented at a special event at the University on 15<sup>th</sup> February 2017 where scholarships from more than fifty sponsoring organisations were also presented.



**ABOVE: Recipients of Douglas Bomford Trust scholarships at Harper Adams University with Trust secretary Paul Miller and trustee David White (from L to R - Joe Robinson, Henry Thorpe, Alan Mobbs, Paul Miller, Chaunce Barrett-Crosdil, James Shaw and David White).**

## RESEARCH PROJECTS AND SPONSORED PHD'S

Aspects of work sponsored by The Trust featured at the Crop Production in Southern Britain conference that was held in Peterborough on the 15<sup>th</sup> and 16<sup>th</sup> February. The conference was organised by the Association of Applied Biologists (AAB) in conjunction with the British Crop Production Council (BCPC) and the agricultural chemical company Adama and covered a wide range of topics relevant field crop production with the proceedings being published in a volume of the Aspects of Applied Biology.

The Trust supported papers presented by:

- Professor Dick Godwin who reported the results of studies that were part of two PhD projects at Harper Adams University supported by The Trust – those undertaken by Emily Smith and Anthony Millington. These considered the effects of deep, shallow and zero tillage with random conventional and low tyre inflation pressures and controlled traffic systems on the yield of winter wheat, winter barley and spring oats. The results showed that crop yields for zero tillage were significantly less than deep and shallow tillage for all crops with an overall reduction of 1.0 t/ha below the mean of the deep and

shallow tillage practices. Controlled traffic farming with a 30% trafficked area produced significantly higher yields than random conventional pressure traffic for the winter wheat and spring oats.

- Agnese Mancini who described her PhD project work at Cranfield University that is investigating the role of different cover crops in reducing runoff and soil erosion from maize crops. An eight-month field trial was described whereby runoff was collected from bounded erosion plots. Treatments comprised four seed mixtures and a control with no cover crop. The experiment was divided into three blocks according to in-field topography. Mean runoff was 1.8 times greater, and soil loss double, in control plots as compared to those with cover crops. However, this difference was not significant due to the high variability within each treatment caused by changes in plot micro-topography, which was evident from a different runoff flow direction between blocks.



**Professor Dick Godwin (left) and (above) Agnese Mancini on the platform at the Crop Production in Southern Britain conference**

## TRAVEL AWARDS

The Trust has recently supported the following travel arrangements for two small groups of students from Harper Adams University:

- Six 5<sup>th</sup> year MEng students enrolled on the Emerging Engineering Technologies module travelled to the EIMA exhibition in Bologna, Italy in November 2016 accompanied by Agricultural Engineering Lecturer Kit Franklin. The students reported that the opportunity to see machinery manufactured in Europe but not widely available in the UK, particularly relating to the growing and harvesting of grapes and forestry, as being a particular highlight of the visit. The students were also surprised by the quantity and range of sub-systems that could be purchased "off-the-shelf" - an observation that may influence their future design work.

- Five students studying Agricultural Engineering with Marketing and Management were funded to travel to three events in the UK (The Precision Farming event on 18 October 2016; Crop Tech on 29 November 2016 and LAMMA on 19 January 2017) as part of a study to "Fully investigate and compile a detailed and comprehensive industry market on the current European row crop planter market". The report from the students indicated that the contacts gained with manufacturers and the opportunity to see machines at first hand, particularly at LAMMA, had been very useful in their project work.

