

In Bomford we trust

The remarkable contribution that the Douglas Bomford Trust has made to agricultural engineering over the last 50 years was celebrated at a special event held at the Trust's spiritual home at Pershore, Worcestershire in early September.

The event recalled the Trust's history; its achievements – through the mouths of several people who have benefited from its support – and considered how it might meet future challenges.



Sound foundations

The Douglas Bomford Trust is "built on 400 years of Bomford family farming heritage", Jonathan Bomford, the family member on the Board and host of the event, told the audience.

The Trust was founded in 1972 by Douglas' widow Betty with the aim of helping young engineers access training and get a start in the industry.

Douglas, a twice wounded World War One veteran, had been studying medicine before the war.



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But he returned to the family farm and continued the family tradition of engineering innovation via Bomford & Evershed Ltd, securing many world-wide patents for his innovations.

In 1939 Douglas published 'Power Farming in National Defence', which explained how he felt increasing use of machines could help make the country self-sufficient in food and so support the war effort.

His passion for innovation and thoughts on reducing farming's labour needs and costs could be very relevant in today's economic scenario, Jonathan noted.

Among Douglas' designs were the Bomford Midget tractor and a reversible plough.

And he was into re-cycling: he bought four funnels from a ship that was being scrapped and converted them into storage silos.

He and his wife Betty had no heirs, so after he died in 1969, Betty – aided by John Fox (HonFlAgrE), then MD of Bomford & Evershed – established the Trust to manage his legacy with a clear aim:

'To advance education, training and research in the science and practice of agricultural engineering and mechanisation.'

Over its first 50 years the Trust has sponsored and supported many students into the industry.

Alumni currently work right across farming and associated industries as well as in research, education, design, production, marketing, conservation and the environment.

The Douglas Bomford Trust

The only UK charity committed primarily to supporting engineering for agriculture and related industries, the Trust currently allocates around £150,000 a year in a number of ways:

CO-SPONSORING up to 10 PhDs at any one time, often in partnership with other funders like charities or manufacturers.

SUPPORTING up to 10 scholarships a year for promising students to aid their studies and encourage them to consider a career in the sector.

AWARDING annual prizes at several universities and through the lAgrE for notable published papers.

PROVIDING scholarships though the Arkwright Scheme to four A-level students to encourage them to consider agricultural engineering as a career.

SPONSORING 300 IAgrE memberships for students, so they gain many membership benefits.

FUNDING travel grants to individuals and groups to help improve their knowledge and experience.

INVESTING in facilities for teaching and research, such as the substantial contribution the Trust made to building a new agricultural engineering facility at Harper Adams University.

In addition to the above, Nick August, the Trust's chair, announced at the event that another significant donation has just been made to support another PhD student:

"The Trust would welcome further donations, which are vital to continue and expand the support it offers the sector, and remain vital to encourage essential "new blood" into the industry."



Testimonial Speakers - Jane Rickson, Nick Tillett and Paula Misiewicz

Thanks from us

The practical help the Trust offers was highlighted by three recipients:

NICK TILLETT used its support to help develop his ideas for using camera-guided implements in outdoor production systems.

Bomford's contribution included sponsoring Tony Hague – then a student – for a year, at the end of which Nick says "he forgot to leave".

The pair ended up founding Tillett & Hague Technology Ltd, which initially worked with basic black and white cameras and a simple computer.

Together they developed precision guidance systems that are now used by companies around the world to facilitate things like inter-row/rotary weeding and spot spraying.

"I am proud of what we have achieved since the Trustees took the decision to back us 30 years ago and very grateful for the support we got then and the many other occasions that they have helped us."

For **JANE RICKSON** from Cranfield University, the Trust has supported many students – including those from overseas, right from its days as Silsoe College.

(Footnote: Douglas was involved in founding the National College of Agricultural Engineering, and the Trust funded the language training facility there).

Among the subjects being studied are some of the most pressing issues currently facing farming, including the efficiency of irrigation and how it can produce more of the energy it needs to reduce its dependency on fossil fuels.

One project she highlighted was run by Mike Giannitsopoulos to test the effects of non-inversion tillage on a range of factors.

These include soil health, organic carbon, earthworm populations, erosion control and cover cropping. This started off in the soil bin at Cranfield University before moving to full outdoor trials at Lamport, Northamptonshire.

This work continues today, with many ongoing projects related to soil and food production.

The Trust's support helps build both the students' confidence and their employability, she adds, with alumni being employed across a wide range of companies and bodies like DEFRA, NIAB and AHDB.

Dr PAULA MISIEWICZ, senior lecturer at Harper Adams University, says the Trust helped her get "the best job in the world".

It helped fund her PhD from 2006 to 2010 and then supported her in establishing a long-term traffic and tillage project which started in 2011 and is now being run by the 4th PhD student co-sponsored by the Trust.

That project has attracted both national and international interest, with a number of related projects in Scotland, the USA and Zambia:

"In the past 15 years, with the Trusts support, we have established strong

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links with academia and many agricultural companies.

"All of these things would not have been possible without the initial and continuing support of the Douglas Bomford Trust."

She credits it for making a big difference in her life:

"What would have happened to me? I'm not really sure – I would probably be OK, but I would not have the best job in the world."

Fit for the future

The Bomford Trust expects to build on its 50 years of achievement by becoming more pro-active in future, while sticking to the principles that have fuelled its past success.

David Llewellyn, former Vice

Chancellor of Harper Adams
University, who has become the
Trust's first Patron told the audience
that agricultural engineering had
tended to "fall between the stools"
of Government support:
"It tends to fall between BBSRC and
the Engineering Council. They
have got all 'high tech' rather than
concentrating on turning practical
research into practical ideas. We
need to get those basics right."

Progress was essential to ensure farming could produce enough food while dealing with the effects of climate change.

"We need to keep agricultural engineering in the view of Government and ensure it understands its importance".

That included highlighting its role in protecting the environment and preventing climate change, and the positive contribution that precision techniques could play.

It could also help farmers find both the manual labour and the technically qualified people it needs to produce food with fewer inputs and less environmental impact.

Paul Miller, former secretary of the Trust and now a Trustee, says the charity's aim is to select the right projects and identify those which deliver benefits to the industry.

"We can take a bit of a risk, but we have to ensure we secure value for money. The Trust has a bigger opportunity now than it did in 1972.

"Our resources are growing and it is important that we use them effectively, and we now have the opportunity to move in a slightly different way than we did before.

"Up until now we have been more often responsive, but now we are going to take the initiative and allocate a proportion of our resources to priority areas (based on horizon-scanning research funded by the Trust), so we can try to set the way some of our projects go".

FOOTNOTE:

The slides used in these presentations and audio recordings of these and other testimonials will be made available on the Trust's website:

www.dbt.org.uk



along with further photographs and a new leaflet promoting the Trust.







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"We need to keep agricultural engineering in the view of Government and ensure it understands its importance".