

Trustee's profile

The Morley Agricultural Foundation is run by a Board of Trustees, appointed by an Advisory Council. Morley News continues its series of trustee profiles and talks to Christine Hill.

Do you work in the agriculture sector?

Yes! My family on my mother's and my father's side have been in farming since further back than I remember, in England and Scotland. Farming is literally in the blood! Agriculture was my chosen career and I'd hoped to go to Reading University and then work for ADAS but my headmistress deemed it 'no career for a girl' and wanted me to study biochemistry. So I qualified as a science teacher, and taught both science and music, but farming has always been my passion.

I remained involved with the family farm even while teaching. I attended Easton College for a year, prior to my first teaching post, as a part-time student and did the BTEC levels I, II and III to give me an insight into arable and livestock production and the farm office. When not at college I worked on the farm at home. Teaching was fun, but became part-time when I took over the full management of the family farm in 1979, and I gave teaching up altogether within a couple of years.

Why did you become involved with TMAF?

I can't remember when I first came to Morley – visits were part of the farming year even as a teenager. I was invited onto the Executive Committee during the last year of John Cross's chairmanship at Morley Research Centre and have seen the evolution to the current

structure where the Foundation looks after the assets of the charity, including Morley Farms Ltd, and distributes grant funding.

What's your role at TMAF?

I take a particular interest in the educational projects that apply for funding. These projects range from single events for young children through to helping PhD research studies. The Board is always mindful to support projects relevant to arable farming, particularly in the East of England if at all possible. We hope to encourage those who are likely to follow a career within the industry.

At the AGM in January 2014 we will give a rundown of the projects currently enjoying support so please to do come along to hear more.

Why do we need organisations like TMAF?

I think independent research is vital for our industry and trial work that bridges the gap between higher research and practical farming is as important now as it has ever been. Farming output needs to rise with population and food demand and research needs to take yields forward again. We need to build yields on a similar scale to the revolutionary effects of Norman Borlaug's research in the 1970s. TMAF, and other similar organisations, plays an important role in the investigation and demonstration of the latest techniques and thinking.



TMAF Trustee Christine Hill

What are your interests outside of the farm and TMAF?

I thoroughly enjoyed Young Farmers in my youth, travelling to Mauritius on an exchange visit which was fantastic. I've had the honour of having various club roles over the years and am currently the Norfolk YFC President.

I have been a Governor at Easton College for almost 19 years, retiring in 2003; I was involved particularly with the farm, personnel and curriculum committees. For five years I was a Board member of the British Beet Research Organisation, taking special interest in the research projects which were submitted for possible funding, and have been Norfolk NFU Chairman in 2009-2010.

I've really enjoyed all of these opportunities; farming has been my life and I like to think that I'm putting something back into the industry.

The TMAF AGM is on 23rd January 2014 at 1.45pm at The Morley Business Centre. Everyone is welcome with refreshments from 1pm. Please contact David Pask on david.pask@tmaf.co.uk or 01953 859630 to confirm.



THE MORLEY AGRICULTURAL FOUNDATION
www.tmaf.co.uk

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Welcome to the Winter 2013 edition of Morley News. It has been an interesting 2013 for the food and farming sector. Despite a cold start the weather was better for farmers than the past couple of years with our farm manager David Jones updating you on his harvest news in this newsletter.

As a charity that actively supports agricultural research and development we welcomed the Government's publication of the UK Agricultural Technologies Strategy, and look forward to this renewed focus on applied research and innovation across our industry.

And we are also involved in educating and inspiring young people about science and agriculture so it has been great to see how food and farming has been covered on our televisions this year with programmes such as BBC TV's *Harvest* and the recent *Nigel and Adam's Farm Kitchen*.

So please take some time to read through our newsletter on TMAF's activities and how they reflect today's innovative agricultural industry. And I wish you all a Merry Christmas and a productive New Year.

Nick Steed

Nick Steed
TMAF
Chairman

In for the long run at Saxmundham

TMAF funds a number of long-term crop agronomy and soil rotation studies at different sites across Suffolk and Norfolk. NIAB TAG's Ron Stobart explains the background behind a new site at Saxmundham in Suffolk.

The need for long-term research to help us gain a greater understanding of the value of soil fertility in crop production is recognised widely. Research is needed to help us tease apart the merits of bagged fertiliser, organic amendments and the contribution of organic matter to fertility, soil structure and soil biology.

The long-term study site at Saxmundham was originally set up in 1899 to look at these areas and with the help of TMAF funding along with NIAB TAG support will now continue to do so.

Research on the site has been focused on the addition of phosphorus (P) in various forms and its interaction with other key nutrients; possibly most importantly with nitrogen.

Over time the facility has been used by many research organisations to produce guidance for growers. The recent cropping history of the site has really only been made possible through the hard work of Ed Brown and other local agronomists and farmers. However in the past couple of years the active cropping had ceased and the site was what might be best described as a rather untamed fallow.

TMAF became aware of the importance of this location and recently secured a 20-year lease from Rothamsted Research for the Saxmundham site. It ensures the future of the site and means long-term research projects can be established. TMAF and NIAB TAG, in conjunction with local agronomists and farmers, have already begun work on bringing this unique resource back into service.

The focus is, first, on taming the fallow and bringing the field back into cropping. So winter wheat has been sown this year, the main trials are being re-established and some initial soil analysis is planned. There is still a lot of work to do but it is TMAF's hope that we can help build on the vision of the site's founders back in late 1800s and contribute to improving our understanding for the next 100 years!



Saxmundham: before and after

TMAF would be interested to hear from additional potential users, collaborators or funders for the site. If you are interested please get in touch with TMAF or NIAB TAG at Morley.

THE MORLEY AGRICULTURAL FOUNDATION

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Field research site for John Innes Centre

The John Innes Centre (JIC), based on the Norwich Research Park, carries out fundamental and strategic crop research and trains scientists in plant science and microbiology. JIC's trials manager Cathy Mumford explains how she works with TMAF's Morley Farms team to deliver the Centre's field trial requirements.

The majority of JIC's field trials are carried out in wheat, with some barley, and occupy 10 to 20 hectares each year at TMAF's Church Farm site near Bawburgh, within the farm rotation of barley, oilseed rape and wheat.

We work with Morley Farms' David Jones to identify suitable areas of the fields for experimental work and in facilitating good field experiments. Large scale field operations, such as ploughing, are carried out by the JIC Field Trials Team to cultivate specific areas and drill plots or rows with one of the three specialist drills available.

Thirteen different research projects, under the guidance of six project leaders, are currently using field trials to provide information to support the genetic research, with another six projects using the JIC site in Norwich. These latter projects involve mist-irrigating plots to encourage wheat ear disease and pea plots grown within a protective cage. These will eventually move to Church Farm as the Norwich Research Park is developed further. This has been a gradual process with the installation of an irrigation main at Church Farm in 2013 to allow for the mist irrigation of pre-harvest sprouting experiments and trickle irrigation for comparative trials.

The type of crop material worked with is frequently unusual, for example wheat landraces which were precursors to the modern wheat variety. This is part of a historic worldwide wheat collection under investigation as a source of new genetic diversity for plant breeders.

Some areas of research require plots at multiple sites, for example to increase the chances of natural disease infection or provide field data from different environments. This season there are *Septoria* and mildew disease wheat plots at

Morley, as well as precision drilled wide-spaced plants which will be individually measured to compare the effect of a specific dwarfing gene, Rht 8, widely used in the wheat varieties of southern Europe. This type of drilling allows scientists to more easily make observations, collect data or take samples from individual plants, easily identify and remove 'rogues' and obtain the maximum amount of seed from each plant.

Plots are drilled by the first week in October to promote natural disease infection and integrate with field operations at Morley Farms. At Church Farm the light soil is suitable for late drilling which is more appropriate for some of our material such as old landraces and varieties, spring varieties from Mexican collaborators and late autumn sown varieties.

The good relationship between Morley Farms and JIC is absolutely key to the support of our crop genetic research and much appreciated by the field trials team and scientists behind the projects.



Harvesting an historic wheat landrace at Church Farm



Wheat plants drilled at greater spacings than usual to aid research assessments



The JIC field trials team (l-r) are Stephen Johnson, Richard Samworth, Cathy Mumford, Kevin Crane and Chris Allen

Harvest 2013: the difference another year makes

In the TMAF Summer 2013 newsletter David Jones, farm manager at Morley Farms, gave some thoughts and predictions for harvest 2013. So what did happen?

The most notable thing about the harvest was the delayed start; about 15 days later than usual. Typically we desiccate oilseed rape crops to achieve even ripening from 10th July and begin to harvest winter barley around 20th July.

My aim is to have oilseed rape crops drilled in August, usually following early harvested cereal crops, all crops harvested by 5th September and autumn drilling done by 5th October. Fortunately the weather was very kind, mostly dry with some rain mixed in so great for combining, with the occasional day off. A wet bank holiday weekend then helped the soil from becoming too dry for crop establishment.

The highlights were the winter barley variety SY Venture, yielding 8.7 t/ha and suitable for malting, our Daytona peas achieving 3.9 t/ha and all sold for human consumption, and our wheat crops which yielded 9.6 t/ha overall. However 12 ha of sugar beet, early lifted the day the beet processing factory opened, only yielded 45 t/ha. Subsequent lifts have yielded 85-90 t/ha and I believe that the remainder will be as good. Our spring barley was acceptable at 6.5 t/ha with large swathes of straw.

Most of the oilseed rape was drilled in August, and the cereal drilling was all but completed by 9th October. Some timely rain events ensured that the oilseed rape establishment has been very good and a mild September/October has produced some rapid growth which will hopefully be 'pigeon proof'. So to summarise harvest 2013 – there is a lot of truth in the saying 'it will always come right in the end' and my new one 'the difference another year makes'.



Harvest highlights included winter barley yields



Sugar beet harvest at Morley Farms

My prediction? Harvest 2013 is going to be as good as any, albeit ten days later than we would prefer.
David Jones, Morley News Summer 2013

Funding arable research and education

Company secretary David Pask oversees the finances and day to day accounting for both TMAF and its subsidiary company Morley Farms Ltd. Here he summarises the charity's income sources and how it funds research and education projects.

As a charity TMAF's principal aim is to help fund arable agricultural research and agricultural education in the eastern counties. So our main challenge is to generate sufficient sustainable income to fund these grants and sponsorship opportunities, which are currently around £300,000 each year.

The Foundation has a sound financial base with fixed assets, mainly land and buildings, of £11.7 million. This includes Morley Farm, Burfield Hall Farm, land at Sprowston, residential properties in Morley and the Morley Business Centre. Our investment portfolio is in low risk

stocks and shares, administered by Barratt & Cooke in Norwich, and was valued at £7.9 million in August 2013. We generated £537,000 income in 2013, mainly from the rent from Morley Farms and those of our commercial and residential properties, together with substantial dividends from our investments.

In 2013 we spent £298,000 across nine very different arable research and education projects, including several unique long-term crop agronomy projects. New grants in the current year include a four-year £4,000 honey bee research project, a three-year £9,000 soil pathogen project

and a three-year £5,000 student PhD on potato blight. The balance of expenditure is on the overheads of the business including property maintenance, professional fees and portfolio management fees.



TMAF Company Secretary David Pask