

The School Farms Network in the UK – History, context, and adding value.

Chris Blythe – Social Farms & Gardens, Bristol, UK, BS3 4NA Orcid: 0000-0001-8517-2458
(chris@farmgarden.org.uk)

Ian Egginton-Metters – School Farms Network, Bristol, UK BS3 4NA Orcid: 0000-0002-6586-3662
(lanem@farmgarden.org.uk)

Michael Hardman – University of Salford, Salford, Manchester, UK M5 4WT. Orcid: 0000-0002-4282-0766 (M.Hardman@salford.ac.uk)

Victoria Schoen – University of Kent, Canterbury, UK. CT2 7NZ, Orcid: 0000-0001-6695-1747
(v.schoen@kent.ac.uk)

Abstract: Alongside recent renewed interest in urban agriculture, there has been an increased focus on school farming. The School Farms Network has a large membership base and interest from other green space organisations across the UK. Using contributions from grass roots practitioners and network co-ordinators, we present case studies to illustrate the breadth of the school farms concept, as well as the value which practitioners find in being part of such a network We examine the future role of school farming and how the practice can be sustained or expanded.

Introduction::

Networks and connections are an important part of the School Farms Network (SFN) in the UK. In this chapter, members and organisers of the network, as well as participant school farmers and academics come together to present an overview of the SFN. Using case studies as examples, we show how the network has supported schools, as well as highlight some of the challenges faced by the network and by individual member school farms. Finally we discuss the role that the School Farms Network plays in supporting projects and make some recommendations for the future.

In the UK, the School Farms Network defines a school farm as:

"a teaching facility within school grounds or directly managed by a school that provides some of the following: Access to a range of farm livestock, the facilities and land needed for their up-keep, machinery, incubators or other farming equipment, small scale food growing, greenhouses or polytunnels" (Saunders et al, 2014)

There is a vast array of evidence demonstrating the significant benefits of school farms and gardens (Hardman and Larkham, 2014). Schreinemachers et al (2020) have shown how the spaces can impact on the health and wellbeing of students, enabling them to eat more fruit and vegetables. Adding to this, Burt et al's (2019) statistical analysis of school gardens and their impacts demonstrated the important value of these assets, particularly within urban communities. Consistently, studies have shown the value of these spaces in terms of tackling obesity, improving access to nutritional produce, and improving mental health (Howarth et al, 2017, Wells et al., 2018, Howarth et al, 2020, Mead et al, 2021).

Background:

In the UK The United States , and other countries (see, for example, Christie & Gaganakis, 1989, Corbett, et al, 2017, Wells., 2014) there is a long record of using agriculture and horticulture in the education system (Viljoen & Wiskereke , 2012). In the US, this includes more radical concepts, such as horticultural aquaponics, aiming to be embedded in the school curriculum by the Government (USDA, 2007). A similar initiative, Agriculture in the Classroom, aims to embed more conventional agricultural practise into the school setting and educate students about the importance of food production (National Agriculture in the Classroom, 2013).

North America also has innovative work around food procurement linked to school farms & gardens. Food Tank (2019) provide an overview of innovative school gardens revolutionising lunches; from Texas to Canada, they provide evidence to show how the food menu is healthier through this approach and other benefits can be felt from investing in the concept. Healthy Plymouth (2021), a scheme in

Massachusetts, adds weight to these examples, through showing how produce is used in school gardens across their area and contributes to the health and wellbeing of students.

Boston and New York pioneered the practice of urban agriculture and school growing in the USA, with early examples dating from around 1891. The modern community growing movement in New York also helped to push forward the practice, with policy tools and funding fuelling the growth of the concept (Hardman and Larkham, 2014).

To this day in the US, *The Agricultural Education Magazine* a long-established publication, charts the challenges and opportunities of the School Farm Sector in the US over the years.

In the UK, the growth of school farms and gardens varies and is very much dependent on the local authority (municipality). An example is in Oldham where the Mayor's school gardens programme enabled the widespread development and growth of the practice in both primary and secondary schools (Get Oldham Growing (2021). University Technical Colleges have also often pioneered practice through embedding high-tech growing into curriculums. Examples here include the first vertical farm in Wigan's UTC (now defunct since the demise of the UTC) to underground hydroponics at Liverpool's UTC (Farm Urban, N.D.). The aim here was to embed both the science behind growing and the practicalities of so doing into the classroom environment.

History of school farm education in the UK

Historically in the UK as far back as the eighteenth century, farming and gardening were included in the school curriculum, particularly in those schools established in 'schools of industry' and developed as a result of the Poor Law system (Goodson, 1993).

By around 1912, it is estimated that about 2,500 schools in the UK had gardens (personal correspondence, HMI) and the use of gardening and farming as a means of bringing students closer to nature was very much part of the curriculum.

The 1920's saw the emergence of Rural Studies, with an increasing focus on outdoor education within the curriculum. By the 1940's there was a growth in gardening in schools as a result of the 'Dig for Victory' campaign, where school gardens were the main way in which children became involved in the national campaign to grow fruit and vegetables and rear animals as part of the war effort (Smith, 2011), alongside other youth organisations such as the Scouting and Guiding movements. Similar patterns were seen in the US (Burt 2016).

In rural areas, farms were increasingly involving school pupils and evacuated children and refugees in farming activities, providing them with an agricultural education as well as an opportunity to increase farm productivity, when many of the male labourers had been conscripted. (Moore-Colyer 2004, United States Holocaust Memorial Museum (2020))

Following the end of World War 2, rural subjects were even incorporated into some emergency teacher training, and the 1950's saw the emergence of regional networks for teachers of Rural Studies (Goodson, 1993)

In the 1960s the credibility of Rural Studies increased, and the National Association of Rural Studies (NARS) was founded. By 1963 nearly 900 schools were offering the subject (41% of Secondary Moderns and 5% of Grammars). 1964 saw the introduction of the Certificate of Secondary Education and by 1966 there were over 2,000 entries for rural subjects and 14 out of 15 examination boards offered them. By the 1970s Rural Science (rather than Rural Studies) emerged only to be challenged by the rise of the environmental movement, and the NARS changed its name to the National Association for Environmental Education. By the late 1970s there were approximately 13,500 entries nationally.

The 1980s saw a rise in vocational education starting with the Training and Vocational Education Initiative (TVEI) in 1984. City & Guilds, BTEC and RSA then emerged and a further increase to over 18,000 rural science entries nationally were recorded. At this time, 112 schools had Young Farmers' Clubs. However, the numbers then gradually reduced, and examination boards lost interest.

The 1990s saw the domination of the National Curriculum. Local Management of Schools (LMS) was introduced, and many schools and Local Education Authorities saw the opportunity to sell land. There was a return to the twin track route of academic and vocational: NVQs/GNVQs/GCSEs/Diplomas.

The DfES (now Department for Education [DfE]) Growing Schools programme was started in 2001 by the Federation of City Farms and Community Gardens (now Social Farms & Gardens), just before the Foot and Mouth outbreak, with the aim of reintroducing hands on farming and horticultural education opportunities for all pupils. Its first endeavour was to check on the barriers involved and to analyse the work of school farms, and from this a Network was developed. Growing Schools in the early days provided support to develop the Network and subsidised some of the costs of network meetings and training.

The commitment by government in the 2003 [Every Child Matters](#) report, along with the Growing Schools programme, led to the creation of the [Learning Outside the Classroom Manifesto](#) in 2006, and the creation of the Learning Outside the Classroom Council (later renamed as the [Council for Learning Outside the Classroom](#)).

It also paid for the development of the resource [Get Your Hands Dirty](#) which was initially aimed at supporting new school farm teachers and technicians. However, it was realised that many teachers needed some affirmation of what they were currently doing, and some introduction to what might be involved in progression to more complicated and resource intensive horticulture and rearing of livestock. The resource was then divided into 7 sections rising in complexity of knowledge and skills, buildings and funding and includes a bibliography and other support materials. The SFN in the UK is unique in being developed by and for practitioners who are very small in number due to there being few school farms and a lack of qualifications to encourage Headteachers to develop farm resources in support; they are a 'rare breed'!

Other networks focus on broader outdoor and environmental education and play (e.g., [National Association for Environmental Education](#)) but include a wide range of settings rather than just school

farms Current estimates, based on Social Farms & Garden internal surveys, suggest that some two-thirds of UK schools now involve students in growing, and an increasing proportion of these are food plants.

Background and development of the School Farms Network:

The School Farms Network (SFN) was created by Social Farms & Gardens (SF&G) with experienced practitioners to develop a framework for mutual support and to raise the status and understanding of the benefits school farms bring to education.

SF&G is a leading charity supporting over 2000 member groups across the UK to farm, garden and grow together. The organisation originated in the late 1970's when city farms and community gardens wanted an organisation that represented them and provide a network to support them, whilst being accountable to members.

With Local Education Authorities selling off school land, a lack of suitable qualifications that schools were willing to invest in, and experienced school farm teachers retiring, SF&G were initially approached to help save a number of school farms that were in danger of being closed. Bringing practitioners together, producing a printed newsletter dedicated to school farms and surveying all Local Education Authorities, generated an enthusiasm to identify peers and create a voice for a network of schools with farm units.

The Network brings together experienced practitioners and those interested in the concept of providing livestock experience within schools for mutual support, to develop a framework for mutual support and to raise the status and understanding of the benefits that school farms bring to education.

Objectives of the network:

- Offers support and assistance to existing school-based farms and those wishing to start a new school farm (teachers, assistants, and parents).

- Facilitates the exchange of ideas and information, including peer teacher support.
- Produces a regular newsletter for those interested in promoting opportunities for young people to take part in farming and agricultural/land-based learning across the education sector.
- Operates a Facebook forum for the exchange of information and ideas.
- Arranges network meetings and conferences which are an excellent opportunity for school farm staff and volunteers to swap ideas, gain inspiration from the work of their colleagues and discuss how to stimulate understanding and support for school farms; and,
- Advocates for, and promotes, school farming.

Technical support for gardening is available through organisations such as the [Royal Horticultural Society](#), [Learning through Landscapes](#) and [Council for Learning Outside the Classroom](#). The [Access To Farms](#) partnership of agricultural organisations, and [Countryside Classroom \(the successor to Growing Schools\)](#), help schools to identify farms they can visit, and for some they help to establish a long-term supportive relationship. Access to Farms also supports and trains farmers to understand what teachers need on a farm visit.

Several local and regional Agricultural Societies run education programmes, including visits to schools. There are some specialist programmes such as Tractors into Schools, and most of the livestock breed societies will provide enthusiastic breeders to visit and advise schools. In summary:

- The use of agriculture and hands on farming and horticultural education is not new!
- Recognition of multiple intelligences and learning styles means there is a responsibility to ensure that every pupil can learn in environments best suited to the individual.
- Ofsted reports and other evidence demonstrates the learning and achievement benefits of hands on farming and horticultural education.

- Schools with farm units attract pupils they otherwise would not, and those who gain the most are not just the low achievers.
- The School Farms Network, and others, is there to help any teacher to develop their knowledge and skills.

Teachers and pupils should all Get Their Hands Dirty!

The Network today:

Today the SFN in the UK operates with support from Social Farms & Gardens and has over 400 members, including active and prospective school farms, other teachers and other interested parties including some agricultural organisations. The membership crosses a wide range of educational establishments, age ranges, and focus. SF&G continues to support the SFN and provide resource and staff time to support the network. The SFN is seen as a key part of Social Farms & Gardens' future strategy and working.

Leadership of the network is provided by a management and advisory group, chaired by an experienced school farm educator and senior educational professional, and supported in a volunteer capacity by a SF&G secretary/convenor. Membership of this group includes school farm managers, practitioners, and staff from Social Farms & Gardens.

There are currently 116 schools and Pupil Referral Units in the UK with functioning farms ranging from those keeping a few sheep and hens in a small area to a 120-acre mixed farm in Banbury. Approximately two thirds of UK schools have some form of gardens tended by teachers and pupils, most growing some food plants. From there being no interest for many years and a gradual decline in the number of school farms (down to 66 in 2006), there is now an increasing interest in both urban settings and primary schools.

Challenges faced by the network:

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As with any support network, the SFN faces a number of challenges in relation to its role. The capacity of teachers in terms of time and pressures to deliver on targets, means that it is difficult to find time in the calendar to attend training, conferences and events, although the use of online approaches developed during the pandemic will certainly mitigate this in the future. Funding for the network will always be a challenge, with many funders preferring to support 'on the ground' activity as opposed to the just as vital support role that networks such as the SFN can offer.

Case Studies

The case studies below show 3 examples of how the SFN has supported school farms, and some of the values and benefits that the schools, their staff and pupils as well as the local community get from being a part of the network. Case studies were selected from members of the SFN, to provide examples of different school farm approaches, and were provided by senior teachers within the schools.

Case study 1: SF&G and SFN Awards for school farms

For several years Social Farms & Gardens (SF&G), supporting the School Farms Network, has worked in partnership with the Royal Agricultural University (RAU) to deliver a conference for school farms and to promote and judge a series of Awards. In this case study we examine two of the award winners, and how their involvement in the SFN has benefitted them. The material in this case study is taken from the award entries submitted.

Development of the Awards:

The conference and awards were developed as a means of recognising the importance of school farms and that to do this a flagship project was needed that could be used to interest people beyond the schools with farms, whilst also being exciting and useful to engage teachers and pupils within the school.

The RAU offered to host a reception and presentation of Awards during the joint SFN/SF&G conference as both an incentive to enter and to give due recognition for the tremendous and important work undertaken by school farms.

Entry categories were agreed to ensure they would be of interest to most school farms and a simple application form and guidance were developed to ensure fairness. The criteria for judging were:

- Clarity of vision and strategic direction, leadership, and management
- Evidence of social, environmental and/or community impact
- Evidence of creativity and innovation
- Positive impact on student development and learning
- Reflections upon success, learning points and areas for development.

RAU staff volunteered to help judge the entries, and wooden plaques were awarded inscribed with the winner and runner up names and categories. That format has been repeated except where Covid-19 has intervened; 2021 will be a virtual online presentation of Awards.

In 2018, Kian Halliwell from St Michael's Church of England High School won the award for School Farms Student Leadership Award 2018. Despite barriers to learning Kian has been a regular volunteer on the farm, attending at 8am and staying after school until 4pm every day. Kian has not only completed his BTEC (Business and Technology Education Council) qualification, secured a place in further education in the agricultural sector and had the stress of his other General Certificate of Secondary Education examinations, but he also consistently found time to be in school from 8 am every day of the week and stayed till 4pm every evening on the farm.

He also got involved in community events and helped to forge strong links with companies in the community in order to develop the school farm; he asked local companies for materials to be donated, including the local supermarket who now donate fresh fruit and vegetables to the school farm which Kian picked up every morning before he came to school. He has also helped to landscape the area with the materials that he has collected.

Kian has attended the Royal Cheshire Show with some of the farm rare breed sheep and has taken part in young handler competitions. With Kian spending so much time on the farm he knows the animals very well and understands their normal behaviour patterns. Due to this he can spot abnormalities in these patterns and always flags up any issues he suspects.

At the 2019 awards, Alice Codner from Elsey Primary School won the School Farm Leader Award.

Elsley is over a mile's walk away from the nearest public green space, which means that for many of their pupils, school provides literally their only access to nature. 32% of children in the constituency live below the poverty line, a figure that is reflected in families being made homeless, in emergency accommodation and so on. In general, they are ineligible for pupil premium due to being recent arrivals from overseas or lacking the necessary paperwork. Alice started Elsley Farm to try to combat the low levels of physical and mental health and wellbeing witnessed as a result of this. Many of these children work on the farm regularly in one-to-one or small group sessions. This gives them the opportunity to regulate their emotions and to build their confidence in learning new skills. Meanwhile having the animals right in the middle of the school grounds means that all children have access during break times.

Working with a tight school budget that would not have allowed for the creation of a school farm, Alice fundraised tirelessly to ensure that it was possible. Calling on the help of volunteers in the community and doing much of it herself they were able to create a farm at the school that has grown considerably. It also created an opportunity for the 620 children living in London to have a green space on the school site and have access to a variety of animals.

Alice raised money to buy initial materials and awareness grew, resulting in a local company coming forward to help with manual labour. Another company then paid for a year's supply of vegetable plants for the school. Alice was a full-time class teacher but due to her work was given leadership of a new Outdoor Learning Team. She took them on training events and ran an INSET day for all staff. She gained confidence and knowledge by volunteering at a city farm and was later employed solely as an

outdoor learning leader, testament to the impact she had had in the school. In the first term she supported each teacher in taking their curriculum lessons outside, whilst also building connections with other schools with farms, taking the Outdoor Learning Team across London to get inspiration and training. Alice leads assemblies for the whole school, ensuring the children know why the animals are there and how to be safe around them. She also takes children one-to-one as well as running two eco-clubs after school for children who want to spend more time outside.

Impact of the Awards: all entry schools report an increased interest in the farm and its potential for learning and social development, with some engaging teachers for the first time in using the resource. Publicity within the school and beyond generates increased feelings of pride, enjoyment, and a desire to develop the resource even further. For some it helps with fundraising for the farm, and for all an increased status within the school community (Egginton-Meters, 2019).

Nationally it helps to demonstrate that school farms have a clear role to play in developing the whole person and delivering the government aspiration that *Every Child Matters*, whilst also raising interest across the agricultural sector where most companies and individuals are oblivious to the existence of school farms and how so many thousands of pupils get the opportunity to experience farm livestock, albeit on a small scale.

RAU staff involved in judging the entries have been extremely impressed, and humbled, by the variety of activity, ingenuity and passion demonstrated, and recognise that the pupil experience leads to greater understanding and appreciation for agriculture and generates an interest in higher education towards employment.

Case study 2: Gloverspiece

The value of horticulture and agriculture has long been recognised as a means of working with students with extra needs. Using a care farm approach, the case study described here; Gloverspiece,

exemplifies this. In this case, care farming is defined as the therapeutic use of farming practices ([SF&G, 2020](#)).

Gloverspiece Minifarm was established as a care farm in 2010 on 11 acres of land close to the Worcestershire town of Droitwich. It developed an outdoor provision for pupils of local schools as well as adults with additional needs and saw a need to offer qualifications around animal care to these clients, providing them with a tangible outcome alongside the meaningful but softer achievements of social skills, workplace skills and confidence building. The proprietor started the care farm after seeing the positive impact on her own five children (two of whom have additional needs) of being on the farm and with the animals. All of her now adult children have worked on the care farm or in the school and remain committed to its vision, having grown a lifelong bond with the land, nature, animals, and the hope is that every child that comes to the farm grows that too.

In 2017, Gloverspiece Independent School was established on the site, providing education for those outside of the mainstream school system. Using the principles of care farming, the school delivers tailored services to both primary and secondary aged clients that are unable to engage with their main placement school. This is often anxiety-based, especially in older clients, many have been school 'refusers' or are unable to cope with a school environment. Younger clients are all supported on a one to one basis and focus on connection with the animals through real farm work: cleaning out stables, feeding and grooming, etc. Clients aged 14 or over can enrol in animal care courses that are practical based, from Level 1 to 3. These clients can be 'unsupported', in that they work alongside the farm technicians rather than have an assigned support worker and are treated like part of the team. Expectations are that of the workplace, but with a softer, therapeutic approach to choosing and engaging with tasks. Behaviours that prevent them from engaging positively with mainstream school life or classroom learning are usually left at the gate. For some, the farm is the only provision they actively engage with. The Department for Education cap on such provision is 18 hours per week. Gloverspiece work closely with schools to help address the needs of the client. Examples include

struggling with the pressures of studying for exams and a desire to work with animals in the future; separation issues; anxiety around busy school environments, mental health and low-level behavioural concerns that are under investigation. Often consultation is underway to obtain an Education and Health Care Plan for the child and to find them a more suitable school: in some cases, this results in them then being enrolled full time at Gloverspiece School.

The school provides education for up to twenty-five additional needs children, all of whom require close staff support. Initially, the age range was 5-12, but this has been extended to 16 to accommodate the current cohort and give them the option of remaining at the school for the majority of their education. Animal care is an options subject for secondary pupils, and it is expected that 100% of the current class will choose it. The farm is a key element in the bespoke programmes to re-engage children with learning. Some have been out of formal education for over a year before they join the school. They have a range of needs from anxiety to ADHD, PDA, and autistic spectrum disorders. A large percentage of pupils are looked after or have been in care at some point previously and come with additional attachment disorders or associated traumas. They can display behaviour that concerns. The farm is essential in creating an environment where each pupil can feel like they can cope with the day, remain calm and settled enough to engage with meaningful learning and to find ways to deal with their emotions if they become dysregulated. This is achieved in a variety of ways. Often, new pupils will begin by being entirely out on the farm with no pressure to be in the classroom at all. Others need encouragement to engage with nature and the outdoors, but it builds confidence and resilience when they do. The curriculum offers academic subjects alongside a broad land-based timetable, including animal care, horticulture, forest schools and various nature-focused programmes. Land-based activities are timetabled for everyone with the addition of being able to access the farm whenever it is needed throughout the day. This can be as a reward, as a cross-curricular learning resource or as a place to get away from everyone and have the space and calm to cope (from cuddling a ferret to feeding the pigs). Hope was one such pupil. Her mother explains:

“She went to a mainstream school which she found quite difficult. She was quite anxious there, she used to tear the walls to pieces basically. She used to get excluded quite a lot. And then we found Gloverspiece, and things have completely changed. It is more open space, obviously she is an animal lover anyway. She seems a lot happier, calmer, loves coming to school now. I love the fact that she comes here and she is happier. She plays with the animals and comes on to the farm sometimes too, but her academics are doing better as well. Last year we found this place and we couldn’t do without it to be honest; it’s been brilliant, absolutely brilliant.”

There is a large crossover between the care farm, college, and school: staffing, policies, training, etc are all pooled and resourced together to build on the strengths throughout. This means that the farm is used in as broad and creative way as possible, with thorough safeguarding, behaviour, health, and safety protocols. The [Care Farming Code of Practice](#) is essential in shaping how Gloverspiece stays true to its ethos. They have added in being a Nurture School, a trauma-informed school, and a Disability Confident employer. It is embedded in everything from recruitment to parental engagement. Every member of staff is asked at interview whether they are willing and confident to take their pupil out on the farm. The majority of consultations for places in school come from the fact that it is within a farm.

For Gloverspiece, being part of the School Farms Network has meant that the journey from caring for animals, to caring for people, to educating people has had support. For many of the staff the journey happens in the other direction: a move from education to working with pupils through their connection with animals and the land. Sharing ideas and best practice, guiding each other through legislative changes, risk assessments, the demands of curriculum and management changes is vital for the growth and sustainability of a school farm. Also knowing that you are not the only one whose pig ran through a PE lesson is too reassuring for words!

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Case study 3: Thomas Alleyne’s School farm

Martin Wedgwood qualified as a teacher in 1978 with a B.Ed. in Rural Science which included the basic skills needed for running a school farm. Martin was appointed as teacher in Charge of Rural Science with minimal resources and a muddy field he was expected to develop into a functioning department and a small greenhouse attached to the laboratory/classroom.

At the time, school farms were far more common than they are now: while Martin's school farm was developing, those around were fast disappearing until at some point in the 1990s, it was the only one left in the Staffordshire state school sector. At this point, Martin discovered the SFN and realised that through this Network he could visit other like-minded teachers and their departments throughout the UK. This showed him what was possible and gave him the impetus to push the development of his own school farm even further.

The farm at Thomas Alleyne School grew and evolved over many years: its first animal house was erected with help from the local NFU and the local Agricultural College; materials were donated from local residents and shops and, thanks to a parent of one of the students, it had a free supply of sawdust for bedding from the workshops of the local prison! Open days were always well supported with people keen to see what went on behind the walls of the Victorian kitchen garden. The roundabout next to the field, where the Tamworth Pigs were kept, became known locally as "The Pig Roundabout".

The farm always tried to maintain links to the town, reporting on significant events in the local press, being part of Open Farm Sunday when everyone was invited, and opening the school farm for assessment during the Britain In Bloom competitions. The farm was always open to visits from the local feeder schools, to support their teaching of the curriculum, and it provided a service to many supplying incubators, fertile eggs, and brooders so they could rear chicks within their own classrooms, as well as providing student labour for many of their environmental projects. Supported and enabled by the SFN, Martin learned from other Headteachers that having a farm gave them a competitive edge when parents were choosing the school for their children to attend. The farm's profile was enhanced by its winning of several prizes including a greenhouse, tools, cash, and many other resources. Such

wins had benefits for the farm but more importantly for the pupils involved, many of whom were not especially academic or good at sport. Their involvement in competitions such as the Royal Shows' Food and Farming Challenges and other competitions organised by the SFN, led to impressive changes in pupils' interactions with others. When on several occasions those same students won at the Royal Show and went on to talk to and shake the hands of various members of the Royal Family, their understanding of what was possibly changed beyond all recognition.

The value of the school farm at Thomas Alleyne was recognised during an early OFSTED inspection. The school was awarded Good with 5 Outstanding Features, one of which was for Art and the other four for the School Farm. A few examples of the text from this report clearly demonstrate the true value of school farms:

".....the farm provides excellent opportunities for students' personal development. For example, students learn the importance of routine and the need for commitment when caring for animals; they learn to work in a team. Many regularly appear at lunchtime and after school to deal with feeding and mucking out. Students also develop confidence and self esteem as they see their plants growing successfully and their animals flourishing. Nor are the benefits merely oneway. These animals are extremely well cared for and therefore very sociable...."

".... the importance of the farm to the school extends well beyond the bounds of the curriculum. It provides an opportunity outside lessons for those who wish to work in agriculture and horticulture, or even veterinary science, to practise the skills that will be required".

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Discussion: the role of networks and the future:

Schools Farms undoubtedly benefit from the existence of a network, in terms of connection, sharing good practice, and simply being part of something bigger beyond their own school grounds.

School farms and gardens as well as other farming and growing activities provide an important grounding for young people and provides links into the wider agricultural sector and pathways into employment related to agriculture and horticulture. In the UK, there is currently no clear educational route into agriculture, except for untested new Technical Qualifications (TQ) that City & Guilds and the National Land Based College have developed; other school-based qualifications that are recognised towards Progress 8 and 'league tables' are small-animal based, such as BTEC Animal Care, and are usually delivered without any contact with farm livestock. School farms together with the School Farms Network help to provide one means of achieving this.

An important question to consider is what the future of school farms in the UK looks like, the network continues to grow from year to year, although we do also see closures, associated with cost, or the progress towards academisation amongst other things. The COVID-19 pandemic has also placed considerable additional pressures on school budgets and school staff and pupils. At the time of writing, it is fair to say that many schools are at breaking point.

The future may also lie with the inclusion of more technological advancements in school farm activities. High tech growing is becoming increasingly practiced in other forms of urban farming and growing and could be a way forward to broaden the scope of a school farm's reach and value. We argue that, although there has been ad-hoc investment into the practice, a major focus by funders and authorities is around high-tech growing in schools. Since 2015, there has been a steady growth of hydroponics and aquaponics in schools, such as the Geodome in Wythenshawe (Real Food Wythenshawe, 2020). A more joined-up approach is required to ensure success across the UK and to avoid substantial financial losses, such as with the Wigan UTC example, to ensure that models are sustainable. In doing so, school farm and garden programmes can connect more explicitly to the [STEM](#)

agenda; allowing for students to improve their health and wellbeing, alongside adding to the curriculum. The SFN has a considerable role to play in these future developments.

The growth of networks and new initiatives to support the links between schools and farm education continues to grow, for example through LEAF's (Linking Environment and Farming) farm Sunday campaign, The RHS campaign for school gardening or the Countryside Classroom Website.

Over the last few years initiatives connecting schools and farming have grown exponentially, all have at their heart a better connection between pupils and the environment, be that agriculture, horticulture, or other areas. Through these initiatives, schools have an increasing availability of resources to use both within the school and by better connection with real life experiences often away from the school grounds.

In recent times (2020) like so many others, schools and school farms have been heavily impacted by the COVID-19 pandemic. Continued change in guidelines and rules, together with the constant need for continual vigilance across the schools for positive cases, have all taken a toll on School Farm Network members. It is likely that as we move through the pandemic, some SFN members may close, but there is a flip side in the increasing recognition of the value that outdoor activity has played in the health and wellbeing of students through the pandemic in particular, something many practitioners have recognised for a long time .

Despite these pressures, the post-COVID landscape is placing a greater emphasis on these spaces, particularly those enabling a more local food system (Schoen & Blythe, 2020). During the pandemic, outdoor learning has received more attention, due to the ability for children to socially distance and take part in educational activities (CDC, 2020). Austin (2021) argues that we may see an increase in school gardens following the pandemic, with models from Denmark and other exemplars being replicated in the UK. The social, environmental and health benefits have been more explicit during the pandemic, with schools and other actors investing in the practice and exploring how to mainstream the concept moving forwards (Austin, 2021).

Conclusions:

In the UK, school farms offer an invaluable opportunity for students to get first-hand experience, in a way which is much stronger and valuable than simply a visit (or series of visits) to farms away from the school site. Educational attainment has been shown to increase in schools where a farm is in operation. In addition to the strengthening of wellbeing and citizenship that outdoor teamwork generates, the farm can also be used as a hands-on resource for all teachers. This value is expected to increase in the post COVID world, and with that comes an increase in the value and need for the School Farms Network. The value of the School Farms Network in supporting schools to develop these spaces is clear; teachers running school farms already exceed their contracted hours and have little time to organise and network across the UK. Advocacy is equally difficult for individual schools, although when journalists and the media do visit, they are extremely impressed! A forum for exchange of ideas requires managing, stimulating and access to other organisations who can provide additional support and promotion.

In the future, the School Farms Network plans to continue to support school farms in the UK. As part of this, we make three recommendations for the future:

- 1/ The SFN should continue to develop training resources and courses for school teachers who are new to, or are established in school farming. This can be done through the biannual conferences and also through the British Accreditation Council Accreditation that SF&G have recently received.
- 2/ The network should further develop links to policy makers to continue to support the growth of School Farms in the UK.
- 3/ Funders should consider the value of Networks and supporting organisations across the whole green sector, and ensure that monies to support these networks accordingly.

Finally it is hoped that the school farms movement and the School Farms Network in the UK will continue to grow and develop, providing school children an opportunity which goes beyond classroom learning.

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