



Synnwyr
Bwyd Cymru
Food Sense
Wales

April 2025



THE STORY OF WELSH VEG IN SCHOOLS

2023 - 2025



The Story of Welsh Veg in Schools 2023 – 2025

By Dr. Amber Wheeler for Food Sense Wales

This is the story of **Welsh Veg in Schools**. It captures the important detail and colour of the experiences shared in the collective endeavour to develop sustainable local horticulture supply chains for the benefit of current and future generations.

Contents

- 3 **The people who make it happen and how**
- 25 **2023: A year of learnings**
- 37 **2024: Consolidating the learning**
- 54 **Planning for 2025**
- 55 **Summary of story learnings**

Report Contributors: Katie Palmer, Sarah Gould, Edward Morgan, Elaine Blanchard, Alex Cook, Tony Little, Lorraine Powell, Emma Evans, Sian-Elin Davies, Caz Falcon, Hannah Gibbs, Pearl Costello, Dafydd Walters and Symon Dovey.

About the author: Dr. Amber Wheeler is an expert in Action Research who works within the **Welsh Veg in Schools** team to support continual monitoring, evaluating, analysing and reflection on findings.





The people who make it happen and how

Increasing the production and supply of local food into procurement does not just happen by itself because of the food system challenges that work against it. At the core of these challenges is that farmers and producers are often expected to accept low prices and take on the risk of supply without adequate support. **Welsh Veg in Schools** is innovating and experimenting to try and change this and in so doing is managing to increase supply and demand for local produce into procurement.

‘Innovation is about fixing a broken system’

Local Authority stakeholder

The experience of **Welsh Veg in Schools** is, that in order to facilitate producers to supply into procurement, the first thing that needs to happen is for key stakeholders to come together to build relationships, with the needs of farmers and growers kept central.





These stakeholders are:

- **Convenors who understand the challenges of building a more sustainable food system**
- **Farmers and Growers and those who support them**
- **Wholesalers**
- **Caterers**

And links also need to be made with:

- **Consumers (in this case schools and school children)**

Convenors

Food Sense Wales took on the main convening role for **Welsh Veg in Schools** as a natural progression from its Courgette Pilot. Food Sense Wales has a strategy based around three key pillars:

- 1. Building a positive food culture in Wales that invests in people, embraces our heritage, celebrates and values “the local” and puts food education front and centre**
- 2. Catalysing a revolution in local and sustainable procurement inspired through horticulture: healthy and sustainable food on the public plate should catalyse demand for the same on every plate in Wales**
- 3. Co-creating a food policy and legislative framework that enables, sets targets for and monitors the transition of agroecological production and consumption in Wales to benefit the environment and society**



[Food Sense Wales](#) operates by building the foundations for change through:

- **Developing a network of cross sector food partnerships across Wales that meet local needs in order to achieve national change**
- **Piloting and scaling innovative approaches to inspire action with initiatives such as **Welsh Veg in Schools****
- **Advocating for and developing good food policy building consensus with food related organisations operating in Wales and beyond through Food Policy Alliance Cymru**
- **Telling the stories of the experiences, achievements and challenges within the food system through effective communications**

As an organisation Food Sense Wales understands the sustainability challenges across the food system and works on multiple levels to co-create a food system that is good for people and the planet. It draws on consciousness practices learnt through their work with the [Conscious Food Systems Alliance](#) (such as self-awareness and presence, emotional awareness, capacity to listen deeply, empathy, openness, creativity, and resilience) and employs the Wellbeing of Future Generations Act's seven ways of working. It sees building relationships as fundamental to change and works with all of the Sustainable Food Partnerships across Wales who play a similar role regionally and act as regional convenors/ facilitators of change. Food Sense Wales as a convener for **Welsh Veg in Schools** provided:

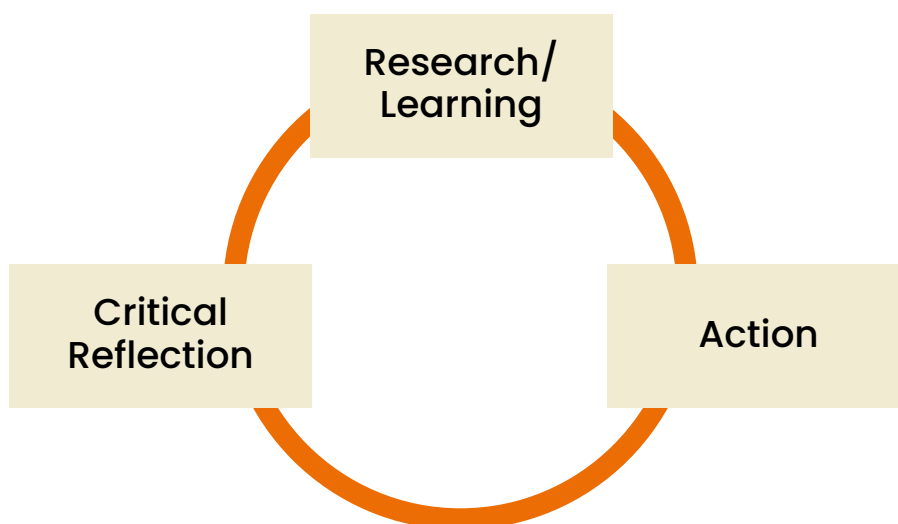
- ▶ **Inspiration, oversight, coordination and organising**
- ▶ **Fundraising**
- ▶ **Communications and brand development**
- ▶ **Event organisation and promotion**
- ▶ **Strategic thinking and policy advocacy**
- ▶ **Evaluation, action research and reporting**



The challenges of this work are the time it takes and the flexibility required for an ever evolving needs of an expanding project. It involves engaging a set of [food diplomacy](#)⁴⁴ skills that include the following:

- 1. Clear focus on vision but flexibility on how to get there and confidence the answers will emerge**
- 2. Empathy and inclusivity**
- 3. Navigating power dynamics**
- 4. Humility – listening and admitting you don't have all the answers**
- 5. Respecting and holding space for relationships**
- 6. Pragmatism – choosing your battles, using available levers**
- 7. Using a range of research approaches communicated simply and well**
- 8. Using the art of the possible and the power of the positive**
- 9. Persistence and the ability to adapt and change**
- 10. Being a reflective practitioner**

Having an iterative cycle of action research as an ongoing element ensures that learnings are continually being reflected on and fed into action, enhancing the ability of the project to evolve effectively.



Iterative cycle of Participatory Action Research

⁴⁴ Wheeler (2018) A New Food Diplomacy p.281



Sustainable Food Partnerships were essential regional convenors and partners on the ground across Wales. This structure gives strength to the work. Every area that **Welsh Veg in Schools** worked during 2024 had an active Food Partnership and they played a key role in building relationships, working with growers, driving work forwards, running activities and organising farm visits, growing produce, organising shared machinery, supporting with grants and engaging with Local Authorities.

Until the challenges of the food system are resolved for growers and more secure markets and systems developed to supply into procurement there is a need for the convening role to continue and beyond further opportunities to evolve.

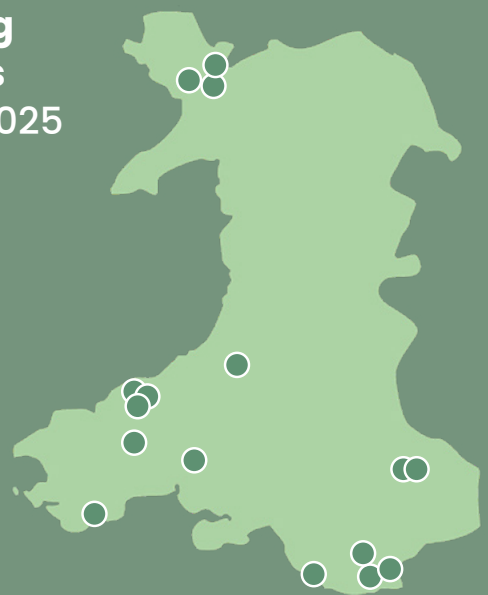
Farmers and growers

The fruit and veg production sector, though growing in Wales, is still small (around 502 growers) and the people coming into it are often new entrants or come from farming backgrounds where the knowledge and infrastructure for growing crops is no longer there. This means that the sector needs more support to develop, more than it would in the future, when the sector is more experienced and there have been years of investment.

The Welsh Veg in Schools growers for 2024 were:

Langtons farm
Alfie Dans
Bremenda Isaf
Bwlchwernen farm
Underwood Farm
Awen Organics
Coedmor Gardd Enfys
Bonvilston Edge

Welsh Veg in Schools growers 2025



All were growing veg for procurement for the first time as part of **Welsh Veg in Schools** on top of supplying into their local communities and all were growing on sites set up within the last five years, apart from one farmer who had grown field crops for supermarkets twenty years previously and restarted in 2024 for **Welsh Veg in Schools**. Growers said

*'It's very hard for small growers to harvest and market. **Welsh Veg in Schools** is great as we don't have to think about selling',*

'This can help us grow. Doing it this way, I've got a way of getting veg out and then supplying veg into the local community',

'I am really good at growing veg but rubbish at selling so this project is great for me' and

'We're excited to diversify how we sell our veg.'

Welsh Veg in Schools was useful for growers because it:

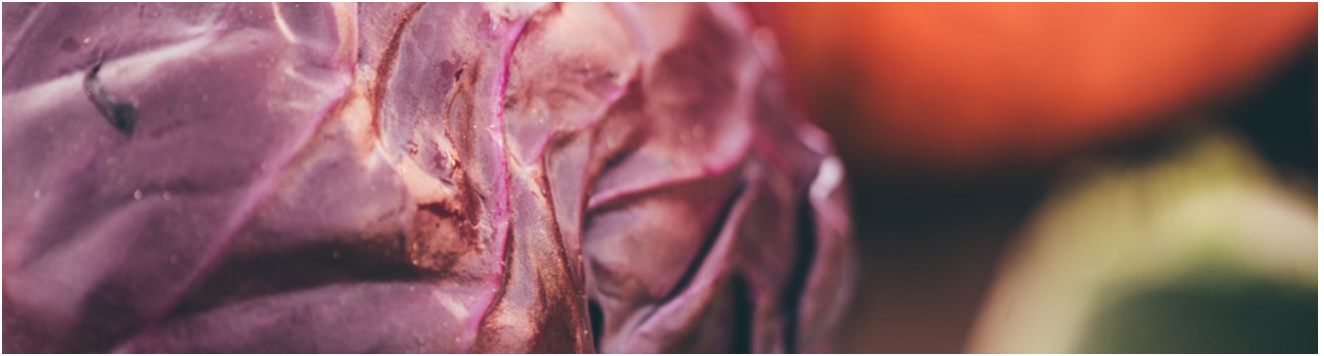
- Provided a platform of collaboration and support of other growers
- Guaranteed an income/price for veg going to children (unless the crop failed)
- Was flexible - undersupply was not penalised and oversupply often accommodated
- Provided small grants (from the wholesaler)
- Gave publicity to growers and opportunities to be paid to host farm visits



It required growers who joined to:

- Be organically certified or start the journey to organic certification - register and start going through the process
- Go through a Small Grower Supplier Standard and an audit
- Collaborate on a crop plan and produce veg to be supplied weekly in season
- Come to growers meetings if possible





For the eight growers who came on board in 2024 around fifteen had been engaged with to encourage participation, and in 2025 at least twenty five growers were engaged with, with fifteen confirming they wanted to supply. There are a number of reasons that growers are cautious and are related to a lack of capacity due to years of under investment in the sector. For some growers there are personal and business circumstances which mean that taking on a new supply chain is not for them at the moment, for others the combination of having to go through the suppliers standard and organic conversion at the same time is too much and for others organic certification is a barrier. Also because the project was still in the pilot phase some growers and farmers might not have felt confident enough in its longevity to risk investing in a new supply chain.

To organically certify or not?

For some, having to adhere to the rules of organic certification is not for them and the price points are not sufficient to make it worthwhile with the additional costs for organic seed, compost and other inputs tipping the balance. There is no doubt that organic certification takes time and money - between £500 - £700 per year, depending on the certifying body. But the benefits to the project, of being able to quantify environmental gain, prove social value and provide the proof needed to justify receiving higher prices, meant that it remained the most practical means to do this at the time. The benefits also for the grower are that organic certification is recognised widely and can be used to sell produce into other markets. Some growers were organically certified anyway and others converted saying

'We've not had a need to be certified before as our customers have not demanded it. But now we have a guaranteed market and income we will.'

Grower



Growers in **Welsh Veg in Schools** had discussed alternatives to certification, that for example involve an inhouse assessment of methods/outcomes through gathering of sustainability metrics that amount to a type of [participatory guarantee system](#)², as used in some other countries. Participatory guarantee systems are locally focused quality assurance systems. They certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange. Growers decided that they would prefer to be assessed by an external body rather than by each other at this early stage of the project but as **Welsh Veg in Schools** grows alternatives to organic certification like participatory guarantee systems could be considered further. Currently a simple way to demonstrate biodiversity benefits is through organic certification, something that will be key to demonstrate social value within procurement contracts.

Suppliers Standard essential, intimidating to start but doable

In its current form the Suppliers Standard is a little intimidating to start, with many different aspects to cover to ensure safety and traceability, but it remains entirely necessary for producers to complete if the supply chain is going to be safe and trusted going forwards. If the right processes are in place, it can be completed in around two hours with support through Farming Connect Horticulture. Although another level of paper work which some growers found onerous, another grower commented *'It's fine, it's easier than in catering.'* It also facilitates growers to be able to supply into other markets.

Training and knowledge building

The work of **Welsh Veg in Schools** would not have been possible if Welsh Government were not also funding Lantra to run Farming Connect Horticulture which offers support for the horticulture sector in Wales. Farming Connect Horticulture helped create and audit the Suppliers Standard, organised meetings, ran important and complementary training, mentoring, networking, helped with communications, worked on advocacy events, supported supply chain communication and much more. An important aspect of the work was flexibility in approach - to support in the best way possible for growers as needs changed.

² IFOAM Organics International (Accessed 2025) Participatory Guarantee System





Farming Connect Horticulture – Lantra and support for growers

Farming Connect Horticulture is a vital partner in Welsh Veg in Schools, focusing on training and supporting growers to deliver safe, high-quality produce. In 2023, they developed the 'Small Growers Suppliers Standard' to ensure compliance with legislative food safety requirements.

Key Features of the Small Growers Suppliers Standard were:

- **Assurance for Growers and Buyers:** The standard provides confidence that all food safety risks are assessed and managed.
- **Site Audits:** Grower sites are audited to ensure compliance.
- **1:1 Business Support:** Food safety consultants offer personalized guidance to growers on the standard's importance and implementation.
- **Resource Library:** Growers can access templates for risk assessments, policies, and documentation.
- **Training Modules:** Growers are required to complete two eLearning modules: Food Safety for Growers of Fresh Produce and Due Diligence for Small Growers.
- **Ongoing Support:** Additional one-on-one assistance and open sessions with consultants are available for questions.
- **Evolution of the Standard:** The Small Growers Standard has been refined based on feedback from growers and buyers to ensure it is user-friendly and practical. Continuous improvement aims to make the standard a beneficial tool for all stakeholders.



Impact of Welsh Veg in Schools on Farming Connect Horticulture programme delivery

Training Needs Identification: Involvement with **Welsh Veg in Schools** has illuminated several training needs for growers, prompting Farming Connect Horticulture to offer targeted training on topics such as:

- **Organic Conversion**
- **Pest and Disease Management**
- **Safe Harvesting**
- **Appropriate Storage Techniques**
- **Yield Forecasting**
- **Additional topics through the wider Farming Connect Programme (e.g. First Aid, Rodent Management)**
- **Peer-to-Peer Learning: A WhatsApp group and regular online meetings have been established for growers to share updates, facilitating discussions on various topics like seed selection and weed control. Farming Connect Horticulture representatives participate in these discussions to better understand the needs of growers, allowing them to develop relevant fact sheets, workshops, and resources tailored to those needs.**

This collaborative approach promotes a supportive community among growers and enhances the overall effectiveness of the Farming Connect Horticulture program.





Need for investment in infrastructure

The Welsh Government 'Small Grants Horticulture Start up' and the newly merged 'Agriculture Diversification and Horticulture Scheme' are a welcome help for infrastructure investment but the grants only partly cover costs, which is a problem for businesses who are capital and revenue poor, and take a long time to process. Very small grants of up to £3000 that were given by the wholesaler as part of **Welsh Veg in Schools** were hugely facilitative and helped support investments in infrastructure that were needed immediately to help increase supply and would be recommended as part of any additional support package going forwards. It's possible that Food Partnerships could have a key role in supporting small grants in the future.

There is a specific need for investment in farm machinery useful to horticulture and there are some lessons here to be learnt from the horticulture machinery ring trials that have been coordinated through Social Farms and Gardens and hosted for example in [Carmarthenshire](#)³.

Need for more horticultural support to encourage more producers

There are two main types of growing needed for **Welsh Veg in Schools**: market gardening which produces salad, tomatoes and cucumbers at volume in polytunnels and field scale growing of crops such as broccoli and carrots. Both of these would be incentivised through financial support through the Sustainable Farming Scheme Optional and Collaborative layers.

³ Social Farms and Gardens (Accessed 2025) Carmarthenshire Machinery Ring





The estimated income from one hectare of veg production is between £15,000 and £80,000 with an average being around £50,000. [Up to 80% of this income](#)⁴ will go towards wages and therefore providing jobs in rural areas. 10%-20% goes on fixed costs leaving at most 10% as profit which rapidly disappears with bad weather. Capital infrastructure costs for a one hectare market garden are in the region of £145,000-£220,000. This means that in practice new entrants into horticulture struggle to make a living from it, despite having a high turnover.

Farmers in general have a low income but they receive some financial support, the average in Wales for 2024 being [around £15,000](#)⁵ per holding. But because farm subsidy payments have been, and continue to be, based on land area, and horticulture requires comparatively little land to produce large volumes – so horticulture has received disproportionately less investment than other types of farming and is in need of support and investment if it is to be scaled effectively.

Current organic payments for horticulture set out by [Welsh Government](#)⁶ are £300 per hectare. In practice the majority of growers in Wales ([57%](#))⁷ grow on less than 5 hectares meaning that most organic growers get around £1500 per annum maximum. This means that in practice new entrants into organic horticulture, struggle to make a living despite having a high turnover.

⁴ Landworkers' Alliance (2020) New Entrants to agroecological farming

⁵ Welsh Government (Accessed 2025) As of today, 94% of farmers have received their full or balance Basic Payment Scheme 2024 payment

⁶ Welsh Government (2024) Organic Support 2024: summary

⁷ Tufu Cymru (2020) Welsh Fruit and Veg Production – Baseline Study



Optional and Collaborative layers of the Sustainable Farming Scheme should and could start to redress this by putting into place financial support that would help to upscale the sector, for both market gardeners and field scale farmers. Based on the experience of **Welsh Veg in Schools** it is recommended that a collaborative layer looks to incorporate support for growers. For example those who collaborate on a supply chain, complete a Small Grower Supplier Standard or equivalent, sign up to a scheme to verify sustainability metrics, agree to pay the wage rate in the [Agricultural Wages \(Wales\) Order April 2025](#)⁸ (likely to be at least the National Minimum Wage) or National Real Living wage and host farm visits could receive annually:

- **Support for collaboration**
- **Funding towards the cost of certification/assurance scheme to prove production method**
- **Costs to cover some infrastructure needs for sustainable production**
- **A budget for farm/school visits**
- **And a contribution towards labour, based on number employed**

It is recommended that the level of support be somewhere in the region of £10,000–£20,000 per production business. This would put horticulture on a level playing field with other types of agriculture in Wales and give meaningful support that would incentivise more sustainable veg production in Wales.

Need for a long term incentive on price

Adding just 3.3p to the cost provided for a school meal, through LAs and Welsh Government budgets, would send a message to farmers and growers that there is a sustainable, secure and fair market for sustainable produce across Wales going forwards. This would help incentivise the sort of investment in infrastructure that is needed on farms and help the public sector to become a real driver of positive change in sustainable veg production.

⁸ Welsh Government (2024) The Agricultural Wages (Wales) Order 2025 (consultation document)





Wholesalers

'The most expensive veg is the veg you can't get.'

Castell Howell



During 2023 and 2024 **Welsh Veg in Schools** were fortunate to have the wholesaler Castell Howell on board who understood the pressures on the food system and the vulnerability of global supply chains and the need to build local resilience and invest in local supply chains. They reported real time issues with supply due to climate change like

'Four to five weeks ago we got an email from a frozen veg supplier saying that carrot yield was down a third overall in Europe and the two thirds left in the ground might not be able to be harvested due to the weather conditions. We are seeing this a lot.'

In November 2024 floods in Valencia led to shortages of fresh salad leaves and fresh broccoli in their supply chain.

Castell Howell is a food wholesaler who specialise in supplying the food service sector. Local Authorities represent 24% of their sales. Veg is not their core business with only 5% of their sales being fresh produce. They buy much frozen veg from Europe, around 1500 tonnes per year, and supply that into Local Authorities and businesses in Wales.



Without Castell Howell and the work they have done it is fair to say that **Welsh Veg in Schools** would not be as far ahead as it is now. Here is a non exhaustive list of what Castell Howell as a wholesaler has done and continues to do to support **Welsh Veg in Schools**:

- Meeting regularly with growers and other stakeholders and developing relationships
- Developing new systems of communication with growers to establish volumes to be collected
- Collecting veg from growers
- Being adaptable on specifications of veg size and shape etc
- Bagging and washing veg where necessary
- Buying surpluses if needed and putting them into wider supply chain
- Supplementing other veg for Welsh Veg if local not available
- Working with Local Authority Catering managers to encourage and support them to buy local and organic veg
- Supporting at events and communicating the good news story of the project
- Providing information and data when necessary including for the life cycle analysis of broccoli
- Working with Sustainable Food Partnerships and others to help organise activities in schools and canteens
- Working with processors to try to develop sliced and diced options
- Working on product development to incorporate veg and extend the shelf-life
- Arranging nutritional testing of veg
- Offering small grants to growers of up to £2500 per year to help them with costs
- Agreeing to cover the difference between the usual Local Authority price and the organic prices paid to growers if the project doesn't secure funding
- Not adding an additional margin to organic local veg
- Sponsoring a Junior Agri Academy and setting their research subject as 'horticulture on a Welsh farm' to try and stimulate interest with Young Farmers

*'Our main business is to support Welsh.
Let's invest money to distribute wider and
help small growers in Wales.'*

Castell Howell





'We are stronger together'

Castell Howell

Is Castell Howell a special case?

There is no doubt that Castell Howell's contribution as wholesaler to this work is exceptional and if other wholesalers want to support local fresh produce supply chains then their example represents best practice to date. There are however other wholesalers interested in supporting local and supplying the local veg that many Local Authorities are seeking. Whether other wholesalers understand the amount of work that needs to be done to support local growers to supply into procurement and grow the sector, or have the capacity to, remains to be seen but in principle two new wholesalers, Oren foods in North Wales and WR Bishop in the Vale of Glamorgan will be working with **Welsh Veg in Schools** going forwards and have the opportunity to innovate in this area.

'It's harder not hard. We are used to dealing with smaller suppliers. We have sympathy and empathy. The farmer is doing us a favour.'

Castell Howell

'Without doubt this will help with food security and sovereignty and managing the risk across the supply chain.'

Castell Howell





Local Authorities, caterers and procurers

One of the reasons why **Welsh Veg in Schools** has been able to achieve what it has in Wales is because Local Authorities, in the main (apart from two of the twenty two), provide predominately in house catering for primary schools and have a relationship with a local wholesaler who believes in building up local supply chains and has worked hard to make it happen.

The [Social Partnership and Public Procurement \(Wales\) Act 2023](#)⁹ means that contracts are now being awarded based on social value as well as monetary value; legislation doesn't allow for lowest price purchasing alone. This is setting the backdrop for tender documents asking for social value to be delivered through contracts. Many Local Authorities want to buy sustainable local Welsh produce, and in so doing support fair work and local jobs, and an ability to supply local produce is often being stated in their invitation to tender documents.

*'This project has been a big tick for us.
We want to push local'*

Local Authority

⁹ Legislation.gov.uk (2023) Social Partnership and Public Procurement (Wales) Act 2023



The main barrier to date has been the lack of availability of veg from local producers able to supply at scale, something that **Welsh Veg in Schools** is starting to address through collaboration and a secure market. The other barrier has been that contracts are too big and risky for growers to take on at the moment, and this is something that **Welsh Veg in Schools** is circumventing through growers feeding into wholesalers who already have contracts with Local Authorities. This is similar to what's going to be happening at a UK level as part of the Crown Commercial Service's [Buying Better Food and Drink](#)¹⁰ commercial agreement where public sector procurement teams will have the option to add their preferred small business suppliers to the agreement and those originating from their closest geographical area. In this situation a Local Authority might be able to state that they want to source veg, from say **Welsh Veg in Schools**, and the contracted wholesaler would have to try and do that.

What this system does not do however, is build relationships back into the system and it is these relationships and understanding that are driving innovation in Wales.

Food Sense Wales

Pressures on school catering

It is worth outlining some of the pressures faced by Local Authority catering teams and the context which they are working in to understand what is driving purchasing decisions and how we can support moving towards more local veg purchasing.

The roll out of Universal Primary Free School Meal provision in Wales led to a huge increase in the number of meals being provided in schools during a very short period of time. In many cases the kitchen facilities were not big enough, new equipment was needed and in others the meals simply had to be cooked elsewhere and brought in. Local Authority areas across Wales are now serving an estimated 31.5 million meals a year. Local Authorities have coped with the upscale but there is still a lot of pressure on the system with large numbers of children having to be served during a short period of time.

¹⁰ Crown Commercial Service (Accessed 2025) New first of its kind CCS agreement for public sector food procurement goes live



‘We use a lot of frozen, as it’s less labour intensive.’

Local Authority Catering Manager

A confounding factor is a lack of staff. There is a recruitment and retention challenge in school catering, 74% of [Local Authority Catering Association \(LACA\) members](#)¹¹ report a lack of applicants, with kitchen assistants the hardest position to fill. There are also [inflationary pressures](#)¹² on the costs of staff and energy (as well as food) and we know that 76% of the cost of a school meal is spent on these overheads. This means that above anything else convenience and simplicity are key drivers of food purchase for kitchens. This is why pre-prepared frozen veg from the UK, Europe and beyond has become a popular choice.

More time to prep

Vegetables that are non-uniform, different from what people have become used to buying from supermarkets, and veg that needs more preparation, puts time pressure on already stretched kitchen staff. So when **Welsh Veg in Schools** was offering small, whole, organic carrots, at the same price as usual, catering managers were understandably cautious about ordering them. Going forwards more attention will be paid to specifications and where needed, for instance with carrots, larger carrots will be grown for catering to reduce prep time. These will also be better for veg preparation equipment that many kitchens have already installed. There also needs to be good communication with kitchen staff about what veg is coming in and what prep it might need. Some of the veg being grown by **Welsh Veg in Schools** needs very little change in prep time:

Little change in prep time:

tomatoes, lettuce, cucumber, onions, courgettes

Some change in prep time:

changing from frozen to fresh carrots, broccoli, cauliflower, leeks.

¹¹ LACA (Accessed 2025) LACA Calls for UIFSM &FSM increases due to rising food costs

¹² Wales Centre for Public Policy (2023) Understanding the cost of universal primary free school meals



Processing, freezing and waste

There is also the opportunity to revisit the slicing and dicing option, where a third party preps the veg, though without freezing facilities this severely reduces the shelf life so the benefits of this against generating potentially more waste in the system need to be weighed up. Eventually, if volumes of Welsh veg produced are high enough, the incentive to invest in freezing facilities in Wales will be greater, but the funding for this should start to be investigated now.

The creation of extra waste in kitchens is a barrier to fresh veg purchasing. In an effort to incentivise waste to be reduced, schools now have to pay for waste to be disposed of. This however might inadvertently be leading to more pre-prepared foods coming into kitchens rather than fresh, which needs processing and creates peelings and off cuts. The impact of this policy needs to be monitored to ensure that it's not incentivising more processed foods in school kitchens. Packaging on veg also needs to be kept to a minimum and it is recommended that **Welsh Veg in Schools** looks at ways of minimising packaging and making it as sustainable as possible.

Anything that can be done, within the current system to make Welsh organic veg more convenient and simple to deal with in kitchens will help facilitate more to be purchased. More time funded for kitchen staff to prepare fresh veg, as well as more information and training on how to, might also help.

School Food Standards and veg

A review of the Healthy Eating in Schools (Nutritional Standards and Requirements) Regulations 2013 is currently underway in Wales. The proposed changes may require Local Authorities to serve two portions of veg per meal as standard, rather than one. At the moment menus can say 'seasonal veg' and this enables local veg, that is available, to be supplemented on the menu quite easily. If menus move towards stipulating exact veg, then this might work against seasonal availability and flexibility and might potentially work against local supply and so would not be recommended.





Consumers: children in schools in Wales

'I used to say these children are our future decision makers I now say these are our change makers'

Local Authority School Engagement

Children across Wales are engaging in and demanding change in their food systems. Children are not just recipients of school food with no choices and they are playing a part in changing the system for the better. There is pioneering work being done by children in Wales to improve the sustainability of their menus. In Monmouthshire, work being organised by [Size of Wales in partnership with Monmouthshire County Council](#)¹³ and others, with children at the forefront has led to chick-pea korma, a deforestation free meal, being added to the menu. In Torfaen the school catering team have developed an interactive sustainability [Journey Road Map](#) reaching out to parents and children to help them on their sustainability journey. They have identified **Welsh Veg in Schools** as a mechanism to source more local produce in 2025.

¹³ Size of Wales (Accessed 2025) Chickpea Korma: A Step Towards Deforestation Free School Menus



In Ceredigion, children campaigned to get their Local Authority to join **Welsh Veg in Schools**. Children from years 3 and 4 Ysgol y Dderi in Llangybi in Ceredigion visited Bwlchwernen farm in September 2024 and learnt about the **Welsh Veg in Schools** project and how carrots from the farm were being supplied to schools across South and West Wales. At the time, Ceredigion wasn't a part of **Welsh Veg in Schools** so the children at Ysgol y Dderi took it upon themselves to canvas for Bwlchwernen carrots to be included in their school lunches.

What followed was a live school project aimed at getting local veg into the kitchen at Ysgol y Dderi. The children invited the head of catering at the Local Authority to talk to them about the school meals service. They also invited the wholesaler Castell Howell to talk to them about supply chains and they wrote to their local politicians, as well as members of the Local Authority, to see if they could help influence and change the way vegetables are sourced for the school meals.

One of those politicians that came to hear about the work that the children were undertaking at Ysgol y Dderi was the Leader of the Local Authority, who was also very keen to get more Welsh produce into the county's school meals. A discussion with members of the **Welsh Veg in Schools** project team soon followed, resulting in the Local Authority becoming part of the project.

The Headteacher at Ysgol y Dderi said

'My year 3 and 4 class were over the moon to hear that they had managed to get Bwlchwernen carrots onto our school menu. They appreciate that although it seems like a simple adjustment, it is actually extremely difficult and a lot of influential people have to be in the same room at the same time with the same goal. I'm so glad that my children have learned that their voices are important and people do listen. Finally – carrots from Bwlchwernen will be served during lunchtimes in Ysgol y Dderi.'

If you are struggling to get local sustainable food on the school menu ask the children what they want and go from there. Consumers have a key part to play and it is worth including them at an early stage.





2023: A year of learnings

'You learn more from when things go wrong than from when they go according to plan'

Wholesaler

In 2023 the first challenge was to secure more growers for the pilot and after talking to many potential growers, three committed to grow organic veg. These were the original Blas Gwent near Cardiff, Bonvilston Edge near Barry and Langtons Farm near Crickhowell.

Welsh Veg in Schools had considerable learnings from the Courgette pilot to apply during 2023. The timings were wrong, veg varieties were wrong, the weather conditions were challenging, there was a need to develop a bespoke safety standard, the systems and communications were clunky and there was a need for a Welsh veg identity. We also recognised the need for a level playing field in terms of environmental production practice in return for price. And although impactful and rewarding, running school activities and farm visits was time consuming.





Wrong timings

The first meeting of growers was in March 2023. Although unavoidable due to funding delays, this was far too late in the season for crop planning. At this stage of the growing season, seeds have been bought and many already planted undercover, and growers have completed their crop plans (usually by February). The project still didn't know which Local Authorities would be involved and what they would buy. One of the reasons was that Local Authorities were reluctant to commit to volumes for Food and Fun over the summer holidays as they didn't know how many schools and children would be taking part and they would only find this out in June. This held things up. What had worked for year one with a tonne of one crop of courgettes, didn't work so well when expanding varieties and volumes. When one Local Authority decided to take veg in the Autumn term this enabled greater planning, as numbers were easier to estimate, and this was a lesson that was taken forward.



Wrong veg varieties and too many

'We worked in the dark.'

Because crops had to be planted before the project had final commitments from Local Authorities, growers took a guess at which varieties and volumes to plant. This was backed by useful reassurance from the wholesaler that they would purchase what schools did not. The wholesaler had also received some funding for product development which could take some of the surplus produce.

In 2023 growers planned to grow a huge variety of veg for schools: cherry tomatoes, plum tomatoes (for product development), aubergines, cucumber, fennel, celery, rainbow chard, spinach, courgettes, french beans, peas, beetroot, cauliflower, onions, squash, red cabbage and leeks. When it came to what Local Authorities usually and actually buy for schools however there was a mismatch that became clear. Schools rarely take celery (a known allergen), fennel, chard, spinach, kale, asparagus, squash and radish. Staples on the menus are Broccoli, carrots, onions, lettuce, cucumbers and tomatoes. So the demand for the veg grown and what schools wanted to buy didn't match. In hindsight the growers said they 'would've planted what the Local Authorities would buy, not what we could grow.' Getting a demand forecast and crop plan agreed by both sides in advance of the season was a key learning.

What veg schools wanted

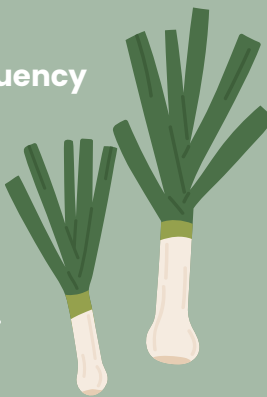
High frequency

Broccoli
Carrots
Onions
Salad
Cucumbers
Tomatoes
Beetroot (processed)
Peas (frozen)
Green beans (frozen)
Sweetcorn (frozen)



Lower frequency

Cabbage
Leek
Swede
Parsnip
Cauliflower
Aubergine
Courgettes
Peppers



Not at all

Celery (allergen)
Squash
Fennel
Chard
Spinach
Kale
Asparagus
Mange tout
Radish





Challenging weather and growing conditions

2023 was one of the most challenging growing seasons the growers had encountered and this affected yields and therefore income. Fewer crops were harvested than predicted. In total the three growers had planned to supply 17 tonnes of veg but the reality was this was closer to one tonne by the end of the season. The weather delayed crops and so supplying veg into the Food and Fun summer programme proved difficult. Some crops did better than others and some sites did better than others. All of the growers were fairly new to their sites and had varying degrees of experience. This is going to be typical of the type of growers coming into production in Wales because the baseline is so low and means that **building in time for learning and the development of growing sites is going to be key to horticultural development in Wales**. Climate change means that we can expect difficult seasons to occur more frequently and the need to build in likely climatic irregularity and be realistic about crop plans is paramount. Another key learning was that **increasing the number of growers was necessary in order to increase resilience in supply**.



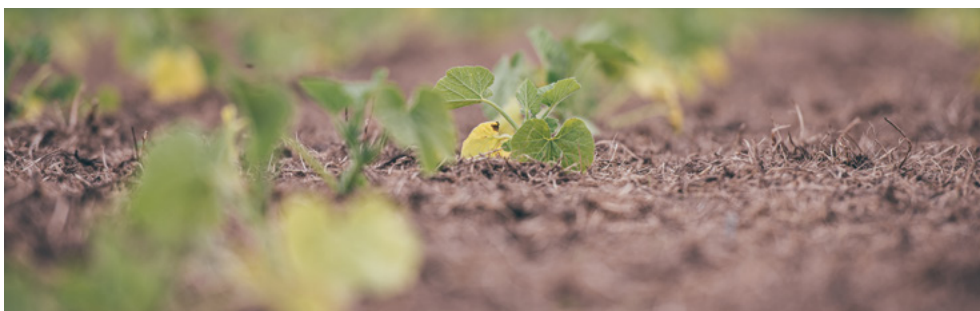
Small Grower Supplier Standard needed

In order for a wholesaler to fulfill its obligations for British Retail Consortium (BRC) accreditation, which provides assurance to customers that products are safe, legal and of high quality, growers needed to go through a food safety audit. The Red Tractor certified standard was considered but did not match the requirements of small scale growers as it is set up for larger, specialist producers. Some of the difficulties for small growers with Red Tractor include more diverse and mixed systems and a disproportionately high record keeping and administrative burden in relation to the size of the operation.

Therefore, Farming Connect Horticulture – Lantra, with help from a specialist¹⁴, took on the development of a bespoke Suppliers Standard for small scale growers. In practice, this took time and energy to get right and it was a significant output of 2023 that the Small Grower Supplier Standard (Appendix 1), which works alongside certifications like organic, came into being. The standard ensures safety and traceability. In practice it provides guidance on things like safety of water sources for irrigation, crop handling, application of compost and so on. In 2024 the Standard was further developed and audited and has been used by stakeholders outside of **Welsh Veg in Schools**. There was a degree of overlap between the small grower supplier standard and other Quality Assurance schemes including organic, SALSA and LEAF. A cross compliance matrix was developed and used to streamline the Standard and Audits.

‘The Small Growers Suppliers Standard is a USP to enable growers to supply into other markets too.’

Farming Connect Horticulture, Lantra.



¹⁴ ML3 Technical Services Limited



Clunky systems with a need for better communication

Because there were a small number of growers and volumes were small, systems remained basic, involving frequent WhatsApp communication, and collections weren't regular. Clear communication channels with Local Authority catering managers were also underdeveloped. Whilst the systems worked for small numbers of growers it was a clear learning that better organising systems and communication systems needed to be developed if the project was expanded.

A need for a Welsh veg identity

In order to ensure a continuity of supply to the schools, where produce was not available the wholesaler had agreed to replace local Welsh produce with regular produce. Growers were worried that produce, not from them, could be perceived to be from them and this could have implications for the reputation of the project, should the quality fall short. Stakeholders decided that **Welsh Veg in Schools** needed an identity or brand. This brand could then be used as a sticker on produce going forwards and help identify it and provide traceability.





Need for a level playing field in terms of practice and price – moving to organically certified

The courgette pilot had specified that veg be ‘agroecological’, that is to say, produced using practices aimed at working with wildlife, mitigating climate change and giving power to growers and communities to create systems best suited to their needs (see [Courgette Report](#)¹⁵). To ensure the extra work to make that happen was encapsulated in the prices paid, the group took the average Soil Association wholesale veg prices for the previous year and the pilot agreed to pay this price for the season ahead. This meant that the growers were getting organic prices for the veg. However, without any checks on this, growers were concerned that as the pilot expanded, there might be inequality between the growers with some adhering to organic standards and others not, but all receiving the same price. There was also concern that as the project expanded there was no guarantee that growers would be growing agroecologically, with the benefits the pilot was claiming. There is no official certification of agroecological methods.

In the autumn of 2023, after much discussion, the growers and the project steering group decided to require all growers intending on supplying into Welsh Veg in Schools to go through some form of organic certification as this was seen as the most pragmatic, straight forward and readily accessible way to check production on farms is adhering to organic methods.

¹⁵ Food Sense Wales (2023) Courgette Pilot





Farm visits were good and very much enjoyed by children but time consuming to organise

Fourteen school visits to four vegetable farms took place, these were in Monmouthshire, Carmarthenshire and Cardiff with over 400 children getting the opportunity to visit a veg farm.

Ten schools and over 300 children in Monmouthshire went to visit Langtons farm near Crickhowell. Each child had the opportunity to plant some onions in the polytunnel and pick and wash and eat some carrots. They were also given a soup bag and recipe on their way home to cook with their parents. For many this was the first time they had visited a veg farm and the feedback was overwhelmingly positive, one child telling the farmer

'this is the best trip I have ever been on!'

In Carmarthenshire three schools visited two farms: Hooma Hu and Glasbren and again the feedback was positive with teachers saying *'The farm was fantastic and the children thoroughly enjoyed their experiences. The only downside was the weather, but we do live in Wales after all'* and *'The trip was amazing!! We all loved it! The children didn't want to come away. The growers are so lovely and inspiring and the children were absolutely enthralled. It was great for the children to meet the people who grow veg and to be there and see it all, they took so much away from it.'*





One school visited Cardiff Salad Garden and the grower washed and prepared a variety of leaves and flowers to taste (as well as cucumber) including Sorrel, Nasturtiums, Rainbow Chard, Rocket, Lettuce, Mustard leaves, Mizuna, Edible grass. All of the younger children tried something and were excited. The biggest hit was the sorrel with responses like *'It tastes like apple!'* and *'It's so sweet and then sour'*. The older group seemed a little more reluctant to try the leaves, but once a few children started, the rest were quick to join in. One boy proudly said, *'I've not tried anything, nuh huh'*, but part way through he started trying the sorrel. Another said

'I tried every single thing but I didn't like any of them except for the flower which was really good'

and another *'It's disgusting'* and another *'maybe I do like this one'*. A few children put salad leaves in their pockets to take home and said *'I'm taking this one home for my mum to taste [so she will be surprised]'* and *'where can you buy this salad? I'm definitely going to have a look at that when I get home.'*

Farm visits seem to provide an opportunity to inspire children to try something new, both at home and in the school setting. A catering manager noted that *'Kids eat things on a farm that they wouldn't eat in the school setting'* and a Food and Fun coordinator explained about a girl who *'...before Food and Fun she was only eating packed lunches with dried food. We've been tasting lots of things over the last few weeks and she's now eating school dinners. She's going to have school dinners in September. We call her our superstar for how much she's been tasting.'*





The Local Food Partnerships in each area played a role in organising the trips which took considerable time to coordinate. Risk assessments were done and good practice developed.

Organising farm visits takes time and money (around £700 per farm visit for a class of 35 children) but is hugely valuable in inspiring and influencing children to try veg. Because of time and money constraints and the need for **Welsh Veg in Schools** to focus on getting the supply and logistics side sorted, no farm visits and limited activities were incorporated into 2024 but this work remains important and Sustainable Food Partnerships, schools and growers should all be supported to help make this happen going forwards.





Product development

Much of the produce grown in 2023 was not suitable for schools and some of this went into product development with the Authentic Curry Company based in Hirwaun, a key partner of Castell Howell the wholesaler. This included cauliflowers for cauliflower cheese to be served in schools, with added kale and chard and plum tomatoes made into sauces with chard and kale.

Bonvilston Edge cauliflowers were made into cauliflower cheese. When processed, only 40% yield was achieved from the cauliflower, generating a lot of waste. There remains potential to utilise more parts of the cauliflower, like the stalk and some leaf to reduce waste and increase yield.

The products were a little greener than children might be used to, a factor that might affect choice, but nutritional analysis showed positive results. The tomato based sauces, when compared to industry standard sauces, had less sugar and more fibre.





The cauliflower cheese, when supplemented with kale and chard, had higher levels of fibre, zinc and iron (See Appendix 2). These findings were in line with fulfilling healthy eating nutritional standards and requirements on fat, saturated fat, non milk extrinsic sugars and sodium, and a minimum standard for carbohydrate, protein, fibre, vitamin A, vitamin C, folate, calcium, iron and zinc¹⁶.

In 2024 this work was continued by Castell Howell and Authentic Curry who combined tomatoes, kale and chard into a sauce with added pulses around meatballs with added veg.

The Healthy Eating in Schools (Nutritional Standards and Requirements) Regulations 2013¹⁷ are currently being reviewed and so work on product development has been paused until the new requirements are confirmed. There remains huge potential to extend the season for Welsh produce and utilise veg that grows well in Wales but children don't currently eat, like kale and chard, and in so doing, improve nutritional quality in circumstances when using ready prepared meals is necessary.

'I cannot overstate the importance of these projects, in terms of developing the supply chain, generating product development and providing more Welsh products to Welsh schools.'

Wholesaler.

¹⁶ WLGA Nutritional analysis Guidance based on The Healthy Eating in Schools (Nutritional Standards & Requirements) (Wales) Regulations 2013

¹⁷ Legislation.gov.uk (2013) The Healthy Eating in Schools (Nutritional Standards and Requirements) (Wales) Regulations 2013





2024 Consolidating the learning

'When stock pressure brought the project to life'

Wholesaler

Having learnt lessons the hard way in 2023, the growers and other project partners set to work to put the learnings into place for the following year. More growers were recruited with the number growing to eight and the project was able to start planning earlier as a result of securing the funding needed in a timely fashion.

Planning the winter before and getting varieties right

The 2024 year started with a multi-stakeholder meeting in Carmarthenshire in November 2023, following the Wales Veg Summit, organised to celebrate the achievements of Peas Please across the previous five years. At this meeting, Local Authorities and Sustainable Food Partnerships came up with the types of veg they would like to buy and growers suggested ones they would like to grow. A compromise list was formed as the basis for crop planning going forward. At this stage there was only an indication of volumes required from Local Authorities however, this was a significant move forwards for the project.



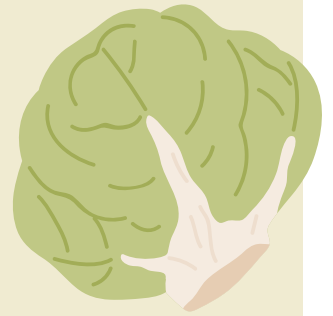


Varieties and indication of volumes chosen:

Lots of: carrots, broccoli, tomatoes, lettuce and cucumber

Less of: onions, leeks, courgettes

For product development: squash, kale, chard, cauliflower



Creating a joint crop plan

After engaging with many growers, and after supporting those who wanted to take part to go through the Small Grower Supplier Standard and register for organic certification, eventually eight growers committed to the crop plan. See Appendix 3 for an example crop plan.

This crop planning process was key. In total around 40 tonnes of veg were planned to be grown across eight growers. An annual plan was then used as a basis for a week by week plan. Certain crops were more difficult than others to get growers to commit to grow - carrots being one. Luckily a grower who had grown organic carrots 18 years ago for supermarkets decided to come on board. It turned out that carrots and the volumes they come in at, really tested the systems of **Welsh Veg in Schools** more than any other veg, as discussed in the full report.

'Kilogrammes don't put the system under pressure but tonnes do.'

Wholesaler

Auditing the Small Grower Supplier Standard

Farming Connect Horticulture supported growers through the Small Grower Supplier Standard and an audit was done of each grower to make sure each business was complying. Having a process of checking for health and safety aspects was very important and reassured the wholesaler that they were providing the best quality and safest veg going into schools and not risking compromising their BRC accreditation.





Develop logistics systems

DTA Cymru, who had also received Backing Local Firms Funding from Welsh Government for food procurement related work, supported the project with developing a communications system between growers and the wholesaler. This system was integral to the project enabling the crop plan to be turned into a weekly plan with growers being able to update the predicted volumes for that week into actual volumes to be collected. In practice this involved a lot of communication and nudging for numbers and a more streamlined system still needs to be developed.


Once the wholesaler knew the volumes available, pick-ups were arranged along the routes. Delivery drivers then came and picked up veg on their way back from deliveries thus minimising journeys and not adding as many carbon emissions. The wholesaler made 92 collections in 2024. In some cases, like when the volumes of carrots were too great for the usual delivery vans, special pick-ups had to be arranged.

In practice this involved administration time at the wholesaler end and capacity and improved communications systems need to be built in to enable this to happen in future as the volume and the number of growers expands.



Developing the brand

Farming Connect Horticulture led the development of the **Welsh Veg in Schools** brand with input from growers and support from Food Sense Wales. The brand was created and was ready in time for Summer and Autumn and for when the veg was going into schools. Stickers were produced to be put on the veg bags/boxes to indicate to catering staff which veg was part of the pilot. The brand was also used for general communications and for the brochure produced to be distributed at the Royal Welsh Show. Farming Connect Horticulture's support on the development of the brand was pivotal.



Welsh Veg in Schools
GETTING MORE ORGANICALLY PRODUCED WELSH VEG INTO PRIMARY SCHOOL MEALS ACROSS WALES

Currently a significant amount of the vegetables served in Welsh schools are frozen and the majority (94%) comes from outside Wales¹. Much comes from Europe from climate vulnerable countries² and none of it is organic.

Welsh Veg in Schools is changing that. This pilot enables Welsh Government funded Free School Meals to support Welsh growers and farmers to sustainably expand production and employment in Wales, at the same time as increasing resilience, cutting carbon, increasing biodiversity and contributing to Wales' global responsibility.

Welsh Veg in Schools recognises that procuring Welsh, sustainable and resilient vegetables is more expensive and covers the difference between that higher price and the usual price a Local Authority pays. It relies on wholesalers with existing contracts with Local Authorities to facilitate the link between organic growers and schools. Creating this secure market has reduced the risk for growers and is enabling the sector to expand, presenting opportunities to capitalise on efficiencies of scale and collaboration.

IN 2024: 8 Welsh growers will supply **40** tonnes of veg resulting in local sales of **£100k**

In 2024 eight Welsh growers will supply around 40 tonnes of vegetables into schools in six Local Authorities, through the wholesaler **Castell Howell**, resulting in local sales of over £100,000 which would otherwise be going outside of Wales. These local vegetable sales in turn will bring in an estimated 3.7 times worth of social, economic and environmental benefits³ bringing the total estimated benefit to Wales to **£370k**

Benefits to the environment: Why organic?

Welsh Veg in Schools pays growers more for their vegetables because they contribute social and environmental value through their production methods. We ask for organic certification so that we can guarantee those benefits to Local Authorities and school children. Here are some of the benefits of 40 tonnes organic local production compared to the equivalent non-organic usual or non-organic local supply. This is before you factor in that much of the vegetables served in schools are frozen and have an even higher carbon footprint.

40 Tonnes Vegetables	Non Organic usual	Non-organic local	Welsh Veg in Schools Organic Local
Carbon saving CO ₂ e	0 tonnes	1 tonne	4 tonnes ↑25%
Carbon storage in soils			↑35%
			Biodiversity gain
			No synthetic pesticides and residues or run off into rivers

Benefits to the local economy: Jobs and money

Fruit and vegetable production is highly productive and is capable of generating between £15,000 and £80,000 per hectare⁴, for field scale and field scale plus polytunnel production respectively, with an average of £50,000 per hectare.

Most of that income (around 80%) goes to generate jobs, around three per hectare⁵, compared to under one per hectare for the average Welsh farm⁶.

Supplying Welsh vegetables into all primary schools in Wales could result in nearly 1000 new jobs on farms and nearly £15m of sales⁷.

£50k/ha = 3 jobs

£163/ha = 1 job

The vision:

Over the next five years we want to expand the pilot from 8 to 100 growers, to bring in £1.5 million worth of sales per year, equivalent to £12.4 million worth of social, economic and environmental gain. This would up the organic local sales to 10% of the estimated total vegetable purchases for schools and save an estimated 60 tonnes of CO₂e annually before factoring in replacement of frozen which has an even higher footprint.

5 YEAR VISION

8 → 100 Welsh growers supplying veg

£12.4m social, economic and environmental gain

£1.5m worth of sales per year

60+ tonnes of CO₂e saved p.a.





Weather problems continue

The wet winter of 2023/4, a very wet spring in 2024, cool wet conditions over the summer of 2024 and overall low light levels had a number of impacts. These included:

- Wet conditions in spring, which meant that land could not be cultivated in a timely manner. This in turn meant that some the weed management operations could not be carried out, which led to big weed burdens later on the season
- Wet conditions pushed back planting for some crops
- Cool wet conditions through the summer led to slow/ weak growth. This left plants more vulnerable to pest and disease attack. A combination of this and ideal slug conditions led to significant slug damage in particular, and many crops were completely lost



These issues were not unique to Wales, or indeed horticulture. The UK grain yield in 2024 was the second lowest since UK wide data started to be collected. Even though this was a single season, it is part of a wider picture of more extreme conditions due to climate change over the last 15 - 20 years including [intense rainfall, higher average rainfall, droughts and more frequent storms](#)¹⁸. This led to much lower yields and harvest for 2024, only 36% of that predicted: 15,824 units/14 tonnes down from 40 tonnes.

¹⁸ Tony Little (2024)



Impacts were felt differently across growers and across Wales. Some crops failed in some areas while other crops did well in other parts of Wales, highlighting the benefits of having more growers spread across Wales. It was also highlighted that growers should crop plan as realistically as possible next year, taking into account likely weather fluctuations.

Volumes and varieties of veg purchased by wholesaler in 2024

Veg	Variety	Expected	Purchased	Difference	% crop supplied
Carrots (Kg)		11,800	9,306	2,870	79%
Tomatoes (Kg)	Cocktail	2,025	835	1,190	41%
	Salad	1,925	515	1,410	27%
	Plum	1,500	100	1,400	7%
Onions, white (Kg)		3,000	242	2,758	8%
Broccoli (Kg)		8,100	1,478	6,622	18%
Leeks (Kg)		1,000	48	952	5%
Courgettes (Kg)		1,000	277	723	28%
Squash (Kg)		1,000	97	903	10%
Chard (Kg)		300	52	248	17%
Kale (Kg)		300	118	182	39%
Lettuce (units)	Sakura	3,500	437	3,063	12%
Cucumbers (units)		7,500	2,319	5,181	31%
Cauliflower (units)		450	-	450	0%
TOTALS		43,400	15,824 units	27,952	% crop supplied overall 36%



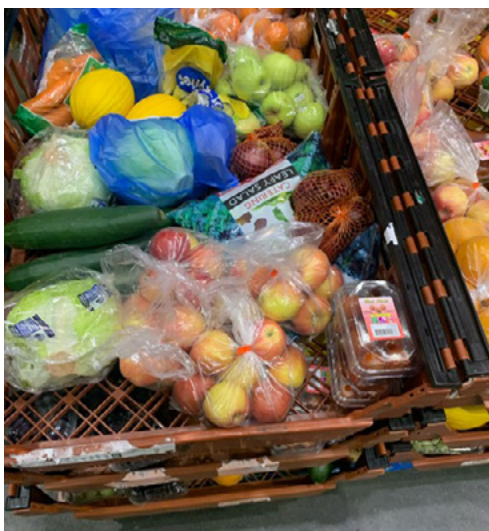
More time for wholesalers and Local Authorities

Once harvested, veg reached the wholesaler and a Welsh veg code was allocated against it which was then communicated with Local Authorities. In practice, this happened in an ad hoc way but ideally these codes would have been generated in advance. This involved a fair bit of extra admin time for the wholesaler.

Because there wasn't enough veg for all schools in a Local Authority, certain schools were chosen to receive the veg. These were chosen on the basis of there being catering staff able to deal with the extra administration and potentially extra work of Welsh veg e.g. cutting up broccoli and removing the stalk instead of opening packets of frozen florets broccoli.

Due to the fluctuating volumes of Welsh veg coming through, in practice, catering managers did have to spend time allocating veg to different schools and getting different schools to order the veg. This was not always possible due to lack of capacity. Ideally, in time, volumes and predictability will increase and systems will develop further to minimise work for catering managers and catering staff.

Where a crop was expected but wasn't available, the schools had to revert to their usual supply. Where Castell Howell was the usual supplier this wasn't a problem but where not, alternative arrangements had to be made with the usual wholesaler. This increased the administration time for already stretched catering managers. If the Welsh crop weren't available, improved systems of substitution would be helpful, as would greater involvement from other wholesalers.





Need for better timings and more accurate crop harvest forecasts

The general pattern of harvest and movement of the produce through the system went something like this, though it varied:

Veg harvested by grower **Weds/Thurs**

Veg picked up by wholesaler **Thurs/Fri**

Veg ordered by LAs on **Thurs/Fri**

Veg stored at wholesaler and warehouse picked **Sat/Sun**

Veg delivered to schools **Mon/Tues/Weds**

This meant that some veg would be stored for a week before it went into school kitchens, where it would then have to be stored for a further few days. Ideally, timings would be more streamlined to reduce the time veg has in storage. This would depend on more accurate harvest forecasting:

Veg harvested by growers **Thurs/Fri**

Veg picked up by wholesaler **Fri**

Veg ordered by LAs on **Fri**

Veg stored at wholesaler **Sat**

Veg order warehouse picked **Sun**

Veg delivered to schools **Mon**



The case of dirty carrots and a need for washing facilities on farm

Most crops are fairly straight forward to pick and pack ready to go into kitchens, like cucumber, tomato, lettuce and courgette. But any root crop or crop that is likely to have soil on them has to have a field wash, as school caterers want to avoid soil coming into kitchens. The [Courgette Report](#)¹⁵ stated that “All wholesalers need is the supply and the ability to pay more for the produce.” Increases in volumes of carrots, proved that this was not quite the case and that there is a level of infrastructure that is missing to supply root crops at volume in Wales.

Nearly nine tonnes of carrots were harvested for the project and the main grower had no washing facilities on site. This meant that washing facilities had to be sought elsewhere before the carrots could go into school kitchens.

In practice, this involved driving harvested carrots back to the wholesaler depot (with a special pick-up as the load was too heavy for normal delivery vehicles) to be stored before being taken to another site where there were carrot washing facilities available. Carrots were washed and bagged and then went back into the depot to be stored before being ordered. This created more employment but also added a large amount of time and cost attributed to the carrots. In total, 21p per kg was added for collection of carrots, compared to 4p per kg for a collection of other veg on a return from delivery route, and 24p per kg extra was added for washing and bagging carrots.

Going forwards, to increase efficiency and reduce costs, growers of root crops supplying into **Welsh Veg in Schools** need to be equipped with carrot washers on site. These cost in the region of £10,000 each. The addition of automated baggers would mean carrots could easily and more effectively be bagged on site with more precision. More investigation and learning from others who supply into catering at scale in other countries would be beneficial to increase efficiency.





Extra costs for the wholesaler – minimum orders, larger bag sizes

Because the wholesaler was trying to be as supportive as possible to all of the growers involved, no minimum pick up weight was set. In order to reduce costs, reduce packaging waste, improve efficiency and simplify logistics, a minimum order of 20kg was recommended by the wholesaler going forwards, even if this is collected every other week rather than weekly.

Carrots – no slicing and dicing

Local Authorities often buy prepared veg due to time constraints and capacity in kitchens. This is the case often for carrots. It was anticipated that Castell Howell would send carrots to a company nearby to slice and dice. After the carrots were washed, they were sent to be sliced and diced as a trial. Because the carrots were of different sizes and smaller than the usual type, they got mushed up when going through the equipment and only a 40% yield was achieved. This level of waste was not acceptable and the option was obviously unviable, meaning that sliced and diced carrots were not available to Local Authorities in 2024.

An advantage of unwashed carrots is that they keep for up to 6 months in ambient storage, although there is a space and cost, and environmental consideration to this. Washed carrots keep for up to a month but sliced carrots keep for only four days. By slicing carrots, without freezing, the shelf life is also dramatically reduced.



However, whole washed carrots, which needed processing in kitchens, were not as desirable because of constraints in school kitchens and there was a lack of demand for them. The learning here was that carrots for school kitchens need to be bigger and more uniform in size and more of a specification developed so that they can be processed easier in kitchens and in bespoke slicing and dicing facilities.

More specifications

Carrots highlighted the need to develop specifications that meet grower, wholesalers and caterers needs, and it was recommended that **Welsh Veg in Schools** develops more refined specifications whilst being cautious to be led by the needs of growers. This would hopefully ensure quality, streamline processing operations, reduce waste and improve overall efficiency. It would also hopefully reduce labour costs, as less time would be spent sorting and grading produce.

One Local Authority decided to focus on replacing frozen broccoli with fresh. Fresh broccoli, compared to the usual frozen florets, took more time to prep, it also involved buying stalks as well as broccoli head. This stalk, which would not normally be bought, could be incorporated into sauce based meals like bolognaise, and the Local Authority were investigating recipes. Another option was for the specification to change and for the broccoli to come with the stalk already cut off. This was discussed at a multi stakeholder meeting and growers were quickly able to say that this could be done, but the shelf life of the broccoli would reduce to two days and so waste might be increased.

Some of these learnings may seem obvious for those already working in the veg supply sector but these were all new to the stakeholders involved and new to the evolving supply chain needed in Wales. A need to take stock and learn from others in other countries is recommended.





Need for more on farm infrastructure and small grants

As well as washers for roots crops on farms there is also a need for more packing sheds, polytunnels and irrigation systems. To enhance the life of veg picked in the field, ambient veg storage of 4-10 degrees for tomatoes, cucumber, peppers, courgettes and carrots would also help as would cold storage (2-4 degrees) facilities for Broccoli, cauliflower and lettuce.

Castell Howell, the wholesaler, gave each grower £2,500, from their charitable trust, as small grants towards infrastructure and this was available on completion of the suppliers' standard. Each grower submitted a simple form detailing items requested and the grants were approved by the wholesaler and a small sub-committee. The grants were for caterpillar tunnels for protective cropping, irrigation systems and water filters (to comply with the Supplier Standard), costs towards polytunnels, field shelter with washing facilities and tools. These greatly helped growers to invest in the infrastructure needed for upscaling and meeting safety standards. As a practice, giving growers small grants is an efficient way to invest in specific infrastructure needed to upscale and can have a big impact on productivity, nearly [75% increase for small scale growers](#)¹⁹.

¹⁹ Food Sense Wales (2022) Small Edible Horticulture Business Support Grants Pilot





Events and communications

Key publicity moments for **Welsh Veg in Schools** in 2024 included having a strong presence in the new Horticulture village at the Royal Welsh Show and welcoming the Cabinet Secretary for Climate Change and Rural Affairs and the Future Generations Commissioner to the stand. Members of the **Welsh Veg in Schools** team have also presented at high profile events such as the National Farmers Union (NFU) Wales conference, the Local Authority Catering Association (LACA) regional (Wales) conference and the Wales Real Food and Farming Conference. The project is continuing to secure media coverage and during the past 12 months, **Welsh Veg in Schools** has featured on programmes such as BBC Radio Wales' Country Focus; news programmes on BBC Radio Wales and BBC Radio Cymru, BBC Wales Today and Newyddion as well as BBC Radio 4 Farming Today, Ffermio (S4C) and publications such as Farmer's Weekly.

The effective communications and sharing of key messages has helped raise the profile of the project; sparked an interest in the agricultural community and has caught the attention of more Local Authorities. It is recommended that this aspect continues.





More engagement and farm visits needed with schools and children

Due to capacity and funding limitations no farm visits were organised with schools in 2024 and activities in schools were limited. Some activities were organised by Monmouthshire Food Partnership, during term time with around 200 children taking part in veg based activities in class which involved guessing the names of veg and tasting beetroot hummus and carrot sticks. Reactions to the taste testing were mixed, ranging from *'I want to take this home for my tea and have cucumber and carrot and beetroot and chickpeas'* to *'This is so nice I can't stop'* and *'I feel sick now, that was gross.'* This underlines the influence activities with children can have. Monmouthshire Food Partnership also organised veg based Food and Fun activities with 160 children taking part. Children tasted and made art with tomatoes and cucumbers grown by **Welsh Veg in Schools** growers. These helped to familiarise and incentivise children to try veg they might not have tried before one teacher saying

'The children were very eager to taste and some stated that they liked the flavour and hadn't tried these before.'





The children commented *'I just need to let you know that the food was delicious', 'I've never tried it before, I really liked it', 'It was really fun, I called mine Gary'* and

'I didn't think I'd like that, and I did!'

Working with children was hugely positive and more is needed going forwards, both in terms of being part of Food and Fun activities but also as part of the curriculum. During Autumn term of 2024, an evaluator²⁰ on behalf of **Welsh Veg in Schools** and funded through DTA Cymru Backing Local Firms funding, visited a number of schools in the Vale and Bridgend areas to talk with children and gauge reaction to **Welsh Veg in Schools**. They found that:

Headteachers

- Had only a little understanding of **Welsh Veg in Schools**
- This had meant that curriculum links had not been made with the catering teams or directly with **Welsh Veg in Schools**
- Whilst learning about the project during the interview process, all Heads were envisioning a variety of curriculum benefits that could be developed in the future
- All gave a resounding YES to farm visits
- All wanted to continue **Welsh Veg in Schools** in the new year

²⁰ Louise Gray undertook this work funded by DTA Cymru through the Backing Local Firm Funding



Teaching Staff

- Who were delivering Farm-to-Fork, Growing projects or Sustainability activities, felt they could benefit from linking with the school meal provision and the catering staff in the future
- Felt bilingual resources associated with Welsh Veg in Schools would be useful

Catering staff

- Demonstrated ingenuity and creativity in the way they were utilising the veg, using all parts of the veg and in ways likely to be acceptable to the children.
- Appreciated the benefits of local, organic veg and the value of participating in Welsh Veg in Schools
- Are a skilled and under-utilised resource within the school, some with years of experience and would appreciate wider involvement
- Were motivated to increase children's veg consumption and reduce food waste
- Noted more food waste with infant pupils and would appreciate greater flexibility around portion size



Children

- Prefer proper plates that are big enough for veg and salad
- Like salads, often served in a cup and eaten with fingers
- Like Cucumber more than other veg
- Like meatballs and katsu curry so scope for incorporating veg here?
- Keen (some) to try different veg – like sprouts or corn on the cob
- Suggested some veg could be flavoured or cooked differently
- Weren't aware of eating Welsh, organic veg. This also applied to teachers and lunch-time supervisors. Only catering staff were aware of the 'swaps' and none promoted this with children

Much more work needs to be done to develop systematic resources that can be used in Food and Fun and as part of the curriculum that complement the work of **Welsh Veg in Schools**. For example work being developed through the School Food Hour in Cardiff. Resources are also needed to communicate the ambition and importance of Welsh Veg in Schools with catering managers, head teachers, teachers, catering staff and children and their parents and carers.

More work needs to be done with children on taste and waste of veg to ascertain what veg children like and how much gets wasted and how menus can be developed that appeal to children at the same time as increasing their acceptance and driving up veg consumption. This could include drawing on the work of [Veg Power](#).

Every child in Wales should also have the chance to visit a veg farm once during their primary school education.



Planning for 2025

When it comes to veg, the reality is that planning for supply starts at least a year ahead, so planning for 2025 began in 2024. This is an absolute key for all those on board, especially the growers.

Welsh Veg in Schools presented to Wales catering managers at the Wales Local Authority Catering Association (LACA) event in October 2024. This was a good arena for discussion and catering managers got a realistic idea of what was involved in **Welsh Veg in Schools**. Every Local Authority was given an Expression of Interest form to complete if they wanted to be part of **Welsh Veg in Schools** in 2025 asking to state how much veg they would like to purchase. Twelve Local Authorities signed up to be involved in 2025. These included the six areas involved in 2024 and extended to Pembrokeshire, Ceredigion, Torfaen, Rhondda Cynon Taf, Swansea and Gwynedd.

In December 2024, two multi-stakeholder meetings were held - one in South West Wales and one in North Wales. These meetings were to review the year and to plan ahead. The discussions were crucial for planning and teasing out barriers and putting in place solutions. This provided the platform for crop planning meetings with growers around three different wholesale suppliers: Castell Howell into South Wales, Oren foods into North Wales and Bishops into the Vale of Glamorgan and the surrounding area. surrounds.

For 2025, 15 growers have contributed to joint crop plans for **Welsh Veg in Schools** to supply around 80,000 units of veg (onions, tomatoes, cucumber, lettuce, courgettes, carrots, broccoli, leeks, cauliflower, peppers, green beans and swede), through 3 wholesalers into 12 Local Authorities.

Work has also been started by Local Food Partnerships to look at the communications and educational resources that could be developed to support the work of **Welsh Veg in Schools**, including Veg Power.



Summary of story learnings

Growers, standards and systems

- ▶ **Welsh Veg in Schools** was useful for growers because it:

- Provided a platform of collaboration and support of other growers
- Guaranteed an income/price for veg going into schools (unless the crop failed)
- Was flexible - undersupply was not penalised and oversupply often accommodated
- Provided small grants to build infrastructure
- Gave publicity to growers and opportunities to have additional income from school farm visits



- ▶ The veg production sector in Wales is small and therefore it requires significant upfront investment to secure the sector
- ▶ Do a demand forecast and crop plan that is agreed by caterers and growers ahead of the season
- ▶ Growers should crop plan as realistically as possible taking into account likely weather fluctuations
- ▶ More growers across a range of terrains increases resilience
- ▶ Having a bespoke Small Grower Supplier Standard and audit is necessary
- ▶ Use a way of verifying sustainability claims of growers e.g. certification. Alternatives to organic certification like participatory guarantee systems should be considered further



Wholesalers

- ▶ There is a need for better logistics systems and more streamlined systems to make Welsh organic the simple and convenient choice. Develop systems and predictability to minimise work for catering managers and catering staff

- Have minimum collection weights
- Minimise time veg has in storage
- Refine veg specifications



- ▶ Administration time needed at the wholesaler end
- ▶ Packaging of veg also needs to be kept to a minimum and ways of minimising packaging and making it as sustainable/reusable need to be investigated
- ▶ Work with a range of wholesalers
- ▶ Develop products that utilise veg that grows well in Wales
- ▶ Having an identity/brand helps



Welsh Government and Local Authorities

- ▶ Welsh Government/Local Authorities up meal budgets by 1% to 3.3p to seal sustainable supply chain investment into the system. This would help incentivise more farmers and growers to invest in veg production systems on their farms
- ▶ New school food standards should allow flexibility to have seasonal veg on the menu
- ▶ Waste reduction policy needs to be monitored to ensure that it's not incentivising more processed foods in school kitchens
- ▶ There is a need for more investment in infrastructure for horticulture in Wales:

- For infrastructure that helps deliver veg at scale such as washers for roots crops, baggers etc
- For infrastructure on farms - more packing sheds, cold storage, polytunnels and irrigation systems
- And for farm machinery for horticulture



- ▶ Keep supporting growers through Farming Connect Horticulture and allow flexibility in approach
- ▶ There is a need for support for horticulture through the Sustainable Farming Scheme optional and collaborative layers



Convenors

- ▶ Maintain convening role and support until the challenges of the food system are resolved for growers and more secure markets and systems developed to supply into procurement
- ▶ Keep gathering research and data
- ▶ Carbon saving does not amount to Net Zero and more could be done to decarbonise supply chains and horticultural production and this should continue to be an area of investigation
- ▶ Continue to develop good systems of communication
- ▶ Learn from others, in other countries
- ▶ Model the infrastructure needed to upscale production

- Investigate freezing facilities



Schools and children

- ▶ More research needed on veg waste and packaging in kitchens
- ▶ More information and training for kitchen staff on Welsh organic veg and what to expect and how to prepare
- ▶ Continue to communicate the work of **Welsh Veg in Schools**, develop resources to communicate with catering managers, head teachers, teachers, catering staff and children
- ▶ Develop systematic veg related resources for food and fun and the curriculum that complement the work of **Welsh Veg in Schools** and align with the Curriculum for Wales
- ▶ Keep on working with people to develop seasonal and sustainable menus
- ▶ Work with children to change the system. Work on taste and waste of veg to ascertain what veg children like and how much gets wasted and how menus can be developed that appeal to children at the same time as driving up veg consumption



THANKS

A big thanks to **Welsh Veg in Schools** funders and all those involved in making **Welsh Veg in Schools** happen. The success of the project is down to fantastic collaboration across the food system and beyond.

To learn more see: [The Welsh Veg In Schools Full Report](#)

Appendices are available [here](#) and calculations that form the basis of analysis in this document can be obtained by emailing a request to foodsensewales@wales.nhs.uk



Ariennir gan
Lywodraeth Cymru
Funded by
Welsh Government

