

Merlin Trust Bursary Report
Elizabeth Mooney
Trip to Norway 10-14th August 2026



Contents Page

Itinerary	1
Aims of Trip	2
Monday 10th	3
Tuesday 11th	4
Wednesday 12th	14
Thursday 13th	46
Friday 14th – Reflections	56
Appendices	57
Acknowledgements	57

Intended Itinerary

Monday 10th

- Travel to Gatwick by train
- Fly to Trondheim from Gatwick
- Travel to the campsite by bus

Tuesday 11th

- Travel to Stephen Barstow's home garden by bus to meet him and get a tour
- Travel to a community garden on the bus for a tour
- Return to campsite by bus

Wednesday 12th

- Travel to and from Ringve Botanic Gardens in Trondheim by bus, meeting the curator Vibekke Vange as well as being given a tour of his onion garden by Stephen Barstow

Thursday 13th

- Travel to and from the Jord Regenerative Festival in Trondheim by bus to attend a range of talks

Friday 14th

- Travel by bus to Trondheim airport
- Fly back to Gatwick
- Travel back home by train

Aims of Trip

The main aim of the proposed project was to travel to Norway to meet with Stephen Barstow, the person who coined the term edimentals (edible ornamentals) and wrote 'Around the World in 80 Plants: An Edible Perennial Vegetable Adventure for Temperate Climates'. I planned to visit his personal garden, a community garden he is involved with, and an onion garden he has created in the Ringve Botanic Gardens. While at the Botanic Gardens I also arranged to meet with the curator and other gardeners. I also attended one day of the Jord Regenerative Growing Festival.

As a horticulturalist who specialises in edible growing, and one with a keen interest in finding more sustainable ways to do this, the aims of these visits was to learn more about edimentals and perennial vegetables, and how they cope with the relatively difficult climate of Norway. These plants are purported to have numerous benefits over annuals. They reduce soil disturbance, support biodiversity, and their extensive root systems can mean they require less water and are more resilient in bad weather. As part of my studies for the RHS Master of Horticulture qualification, I undertook a dissertation research project on perennial vegetables and this study trip was also designed to support the Viva part of this assessment in September. I also believed that this trip would aid my work at Wisley, and support the outreach, various media, and talks I am involved in.

Monday 10th

As my first time abroad in seven years, this trip felt rather special. Upon leaving Trondheim airport, it was wonderful to see rain for the first time in months! The first place the bus passes on its way west through is rather disconcertingly called 'Hell', with a Hollywood esq sign up on the hill declaring the name. Apparently, the name has made the village a bit of tourist destination: it in fact derives from the Old Norse 'hellir' meaning 'shelter beneath a cliff'.

The bus journey swiftly revealed the beauty of the fjord, and there wasn't time to do much except settle into my little camping log cabin by the water, falling asleep to the sounds of gentle waves on the shore (Figure 1). Horticulturally, I was impressed by the roadside verges, which were full of wildflowers and really wonderful to see (Figures 2 and 3).



Figure 1 Log cabin by the lake



Figures 2 (above) and 3 (right) Wildflowers alongside the main road from Trondheim airport to Trondheim



Tuesday 11th

Unfortunately, family circumstances with one of the people I was meant to meet over the next couple of days had necessitated a slight change of plans. However, I still had plenty to be getting on with, and woke to a blustery day over the fjord, but with lovely light (Figure 4).



Figure 4 Beautiful morning light on the fjord

I headed off to Ringve Botanic Gardens near Trondheim to meet the curator Vibekke Vange. The difference in weather to what I had left behind in the UK was stark, and I was certainly glad I had my full waterproofs, both for warmth and protection against the showers. The curator was hugely generous with her time, as well as a sit-down chat I had a full guided tour of the 32 acres and I picked up lots of interesting pieces of information, ranging from information about the garden, to observations about the long term, differences between Norway and UK, and some practical tips.

The whole site is managed by just the curator, 3 permanent staff, and some summer help. This means that there are few purely ornamental beds as they need to focus the resources available on the systematic beds that form the core of the garden. The garden sits under the Norwegian University of Science and Technology. It was started specifically as a university garden in the 1960s, opened to the public in 1973, and is home to the oldest science museum in Norway. It is now open 24 hours a day with free access. I witnessed the problems this can cause when some children ignored a sign (Figure 5) and were busy disturbing the water lily pond! This garden is an educational garden as well as being open to the public, and the various collections have developed over the years. The education involves courses on subjects such as botany and fresh water ecology, and research is carried out into topics such as urban greening with indigenous species and beetles.



Figure 5 It seems children everywhere are happy to ignore signs

The **climate** of the botanic garden is such that it is under snow for a period each year, although their frost-free period stretching from sometime in May to sometime in October is not too dissimilar to parts of the UK, and can in fact be longer, aided by being so close to the fjord. The main impact of climate change that has been noted is the prolonged growing seasons. While there is no hard data to prove it, plants appear to be surviving that would not have done so 30 years ago, particularly woody

species, and where seasonal summer help was previously enough to keep on top of weeding, weeds now seem to outlast the help and keep going into November!

As a botanic garden, they are involved in **plant conservation**. The main example of this is with *Eurybia sibirica* (formerly *Aster sibirica*) (Figure 6), a rare relic from the ice age. This plant nearly went extinct. It used to be more widespread when more gravel from the ice age was around for it to grow it but, despite being tough and hardy to climatic conditions, it is very easily out competed and swamped by other plants. In 1897 a few patches were found by just one Norwegian lake. A local woman began propagating and saving it, and eventually botanic gardens stepped in and got involved. It has been at Oslo Botanic Gardens since the 1980s and at Ringve since 2013. It is easy to propagate from cuttings (Figure 6), and an investigation is occurring into how wide or narrow its genetic base it. In 2025 the first wild re-introduction was carried out and, besides a few plants being killed by nibbling herds of reindeer, it was a great success.

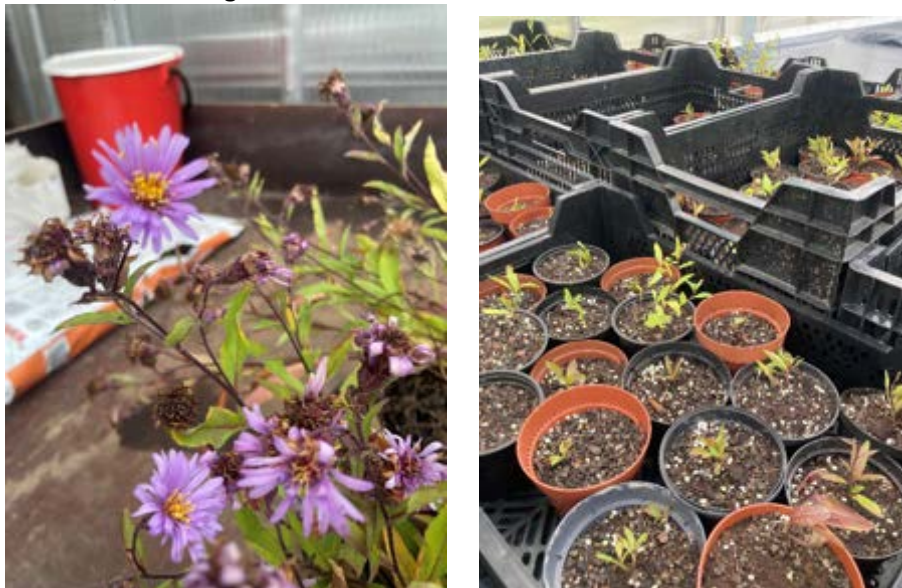


Figure 6 *Eurybia sibirica* growing and being propagated

It appears it is impossible to do a garden visit without the subject of **slugs** cropping up. I was hugely impressed by the lack of damage to the hostas dotted around the garden (Figure 7). Despite reassurances that they do have slug challenges; they were not very evident. It was theorised that the climate of Trondheim means that they just do not get going early enough in the spring to cause major issues. They have had a non-indigenous slug from the Iberian Peninsula arrive in recent years, which they are trying to control through hand removal.



Figure 7 These *Hosta* plants had virtually no slug damage

The garden is broken up in several distinct sections:

- Up on the terraces in front of the music museum that sits within the garden were a couple of the only purely **ornamental beds**, echoing a more established one near the admin building (Figure 8). They were well kept, and I was quite surprised to see cannas (Figure 9). They were doing alright, and need to be lifted overwinter. Apparently, they have done much better in previous years, but due to the poor summer (up in Trondheim in 2026 that means it has been a bit chilly and wet!) they have not flowered much.



Figure 8 Established ornamental bed



Figure 9 Canna plant growing in the garden

- The **systematic beds** are the flagship area and are arranged as a journey through evolution, from the oldest plants through to all of the different plant orders. To break it down by family would have meant too many hedges, which are the dividing device used between areas, and they already have about 1km of them. A few plants of particular interest in this area were *Magnolia acuminata* with the scent of cucumbers (Figure 10), a stunning sweet pea frame made from hazel and sycamore coppiced from the garden (Figure 11), *Rosa rugosa* which is apparently blacklisted in Norway as an invasive plant that spreads along waterways (Figure 12), and the potatoes where their chosen cultivars were 'Carolus', 'Hassel', and 'Nansen'. This area also highlighted the change in plant success given climate change. Where once *Buddleia* spp almost always died back to the ground over winter, it is now much more reliable (Figure 13), and the same can be said for some Magnolias and figs. One *Paulownia* was pointed out with a dead branch where is always used to dieback over winter (Figure 14), but has not for

several years as the longer seasons help it to grow and harden wood before winter. It is helped by being in a sheltered location.



Figure 10 *Magnolia acuminata*



Figure 11 A sweet pea hedge



Figure 12 Blacklisted *Rosa rugosa*



Figure 13 *Buddleia* is one of several plants that now appears to be more reliable in Ringve with climate change



Figure 14 *Paulownia*, showing both a dead branch from previous winters and current successful growth

- The **arboretum** is set out geographically so you walk through the whole world. At one point, standing on the edge of the lake, you were in North America and could see the whole way to Europe (Figure 15). The arboretum was described as shabby chic, with some areas left relatively untended, partly due to staffing levels but also to support biodiversity. Two items of particular interest were an impressive *Sciadopitys* covered in cones (Figure 16), and a piece of chainsaw artwork (Figure 17). This was made from a dead trunk in the North America section to reflect old North American folklore. The story is that during a raging forest fire the mouse asked its friend the Douglas Fir to protect it. This occurred, and ever since the cones of this tree have had a pattern of mouse tails in remembrance, a symbol of the interconnectedness and interdependence of nature.



Figure 15 Looking across the arboretum lake



Figure 16 *Sciadopitys* cones



Figure 17 Chainsaw artwork depicting a story from North American folklore

- The **primula collection** (Figure 18) was developed by a previous curator with a passion for them, but has been reduced in recent years due to staff numbers. It is still very impressive.



Figure 18 Part of the primula collection

- The **landscape garden** is an attempt to show the main features of an English landscape garden but in miniature. This area contains the oldest tree in the garden but most of the trees are not native, and have instead been chosen to echo the English landscape style. The area underneath has been turned into a meadow, with plenty of added bulbs for early spring interest. One area had plenty of Martagon lilies, and would have been stunning had I been

visiting a little earlier (Figure 19). Most of the meadow had been cut and composted a few weeks earlier, but this area had been left to enable self-seeding. A **wildflower meadow** elsewhere in the garden is yet to flower due to a late spring cut (Figure 20), illustrating the importance of such management techniques.



Figure 19 The meadow with Martagon lily seedheads



Figure 20 The meadow yet to flower

- The **Renaissance / Medicinal Garden** (Figure 21) opened in 1994 with the plants chosen based on a Norwegian book from 1694 that describes the plants that can cope with the climate. It is laid out like a traditional parterre with 120 species / cultivars. Plants which caught my eye were the healthy asparagus, the Jerusalem artichokes which apparently do well but do not flower every year depending on the climate (Figure 22), a wild Norwegian native called scurvy grass (*Cochlearia officinalis*) which used to be eaten as an excellent way of warding off scurvy, and the summer savoury (*Satureja hortensis*) which apparently goes really well in cooking with peas and beans, crops which do well in Norway.



Figure 21 The Renaissance / Medicinal Garden



Figure 22 Jerusalem artichokes, left, and asparagus, right

- At the National level Norway has instigated a project to collect and preserve the most well-known and used decorative perennials. This has been sub-divided to the different regions, so here at Ringve they have plants from the relatively local area, forming what is termed a **clonal archive** of traditional garden plants (Figure 23), protecting them and making sure that they do not disappear in the future. As part of this clonal archive, they have also collected some old varieties of lots of different fruit to protect their history and heritage. These beds, along with some others, have drip irrigation for dry spells, although it has not been necessary so far in 2026.



Figure 23 The clonal archive beds

Over time the curator described the garden as having shifted from being a botanic garden towards being a **biodiversity garden**. The deer, foxes, and badgers do cause some issues, but the wildlife is welcomed. There was a lovely bug hotel, created in 2014 before they became quite so popular (Figure 24), and I witnessed coal tits so tame that they would feed from the hand (Figure 25). Apparently, there are red squirrels who will do the same but unfortunately, they did not make an appearance. Bird surveys are done, and this biodiversity is the host to a number of studies by university students, feeding back into the educational nature of the garden.



Figure 24 A creative bug hotel



Figure 25 Fairly tame coal tits

Overall, Norway was said to have less of a gardening culture and history than the UK, with fewer training opportunities and less government support. However, I left the Botanic greatly impressed by the number of different aspects to the site, and the high quality of the horticulture given the low staffing levels. There are ubiquitous problems for all gardeners, including the challenges of climate change, but this garden was also embracing the opportunities it brings in terms of new plantings. This is a garden that has changed and developed across its history, embracing more biodiversity and experimenting with plants, while maintaining its educational and research core.

Due to my enforced change of plans, I now had the afternoon free, and it was suggested that I use the time to go and explore Trondheim, especially the gardens around the cathedral. These proved to be an interesting blend of rather traditional bedding and short grass, as well as some more imaginative planting schemes, impressive trees, and areas of longer grass. I was particularly inspired by one bedding scheme that was almost entirely traditional bedding plants, but with the addition of sweetcorn which appeared to be being used to provide height and structure, as well as a harvest (Figure 26). Some of the planting beds were filled with perennials (Figure 27), while the range of mature trees dotted among the graves created a peaceful atmosphere (Figure 28). The copper beech was most impressive (Figure 29).



Figure 26 A bedding scheme making use of sweetcorn



Figure 27 An attractive perennial planting scheme



Figure 28 The cathedral graveyard



Figure 29 A stunning copper beech

I then took a walk up to a fortification above Trondheim, which afforded some great views, and reinforced the general impression of the green and open nature of the place (Figure 30). The very heart of Trondheim was full of buildings and shops, but after just a five-minute walk I no longer felt like I was near a busy shopping centre. This was much less uniform than any British urban conurbation I have been to, and did not feel like it was so near the centre. Robot lawnmowers were much in evidence, and all of the houses and buildings were different (Figure 31). Outside the immediate centre there was a lot of greenery. I was particularly impressed by one bin store I passed with a green roof covered with oxalis and catmint (Figure 32).



Figure 30 A view out over Trondheim



Figure 31 The buildings in Trondheim had a lot of variety



Figure 32 A bin store with a catmint and oxalis green roof

Wednesday 12th

I woke up to another cloudy day on the fjord, but slightly less windy. Due to the enforced change of plans, Stephen Barstow had decided to fit all three gardens of his into one day, and it was exciting and highly informative. There was an awful lot of information to take in at the three stops, some about the history of the gardens and Stephen's basic approach, but also plenty of plant recommendations. We had a brief chat about the definition of 'edimental' (edible ornamental). I have tended to use this term for edible perennial plants that people do not normally consider to be edible, but Stephen, who coined the term, uses it to encompass all beautiful edible perennials. Under this definition Jerusalem artichokes and asparagus would qualify.

The first stop was back to the Ringve Botanic Gardens and the Onion Garden based there (Figure 33). This is known as the **Chicago Onion Garden**, 'Chicago' literally meaning 'stinking place in the woods' because the American city was built on a site with lots of perennial onions grew. In fact, all alliums were originally perennial, and the *A. cepa* which is widely grown as a biennial in vegetable plots was selected out of these. This garden was created in 2017 and the compost was mixed with gravel to improve drainage. Some plants struggled initially, and some soil improvement was done for them. They have since thrived, but Stephen thinks they might have done so anyway as fungal associations developed. It gets to around -20°C each year in Trondheim, and the fjord means that snow comes and goes, which can mean it freezes deep into the soil without the insulating layer of snow, but these alliums grow well. In fact, Stephen says this is one of the best places to grow alliums. He puts up pheromone traps against leek moth and there is a little rust but not much else due to the climate. No problems so far with other fungal diseases, although these may come with climate change, and as grow your own hopefully becomes more popular in Norway and more people start participating.



Figure 33 The Chicago Onion Garden at Ringve Botanic Gardens

All alliums can be eaten so long as they are not eaten to excess, and it is generally the leaves, flowers, bulbils, and scapes that are used, with some having very strong flavours. Few perennial alliums form large enough bulbs to be used as annual onions, although a couple do. There are over

400 different alliums in the Onion Garden from 100 species. This is around 10% of the species globally, making this garden one of the best places in the world to view the diversity of onions. Over time Stephen has had over 500 alliums in the garden, and he has more at his house just waiting for space. The bed is divided into co-ordinates to help Stephen keep track of what is where. There is not much design to the bed, although miniature alliums are generally at the edge, and woodland species that prefer shade are sheltered by taller alliums as the bed itself is in full sun.

The whole garden is organic and managed by hand. The main maintenance task is deadheading because Stephen does not want the plants to self-seed. This is because they would not come true to type, and it would be impossible to keep track of which self-seeded plant came from which parent. He is trying to maintain the purity, distinction and clarity between the different alliums. Other maintenance jobs include mulching every couple of years with garden compost to control weeds and liverwort. Dandelion is the main weed. Clumps are divided every few years in the autumn, and the opportunity is taken to extract any dandelion roots at this point. This is also a chance to propagate, and there is an onion group in Norway where members can request plants of any onion in the garden to grow themselves.

There is a huge range of sizes, leaf types, flowering times, and colours from white to pink and yellow, with bees and other pollinators loving the flowers. Here are some of the standouts (Table 1):

Table 1 Standout plants at the Chicago Onion Garden

<i>A.cernuum</i> is the nodding onion, it is widespread in North America and has many different forms, around 20, including the late flowering 'Alan Capula'. It stays green all winter and is possibly the hardiest allium. It acted as a survival food when Europeans first arrived in North America.	
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A. macranthum (top) is a really attractive cultivar. It and *A. valischii* (bottom), the Nepal / sherpa onion) are both really important to Himalayan people. *A. valischii* has rhizomes, which is unusual for alliums, can spread up to 50cm, and are edible. It is a late emerger, often waiting until late May to make an appearance in Trondheim, offering a useful harvest of fresh shoots later than other varieties.



The Norland onion is a hybrid between *A. nutans* and *A. angulosum*. It is very pretty, tasty, productive, and is sterile so does not self-seed.



A. cerulean is the blue onion, it is from the Himalayas and produces edible bulbils in the seedhead



A. hookeri is white in its most common form, but a really attractive yellow form *var. mooliensis* was in full flower. This sends out rhizomes, and it grown at farm scale in China for harvesting as a vegetable.



A. henryii has not got much food value as it is so small and delicate, but was an attractive miniature species



A. beesianum was another miniature with interesting-coloured flowers



A. ovalifolium was larger leaves than some, and the 'Leuco Nervum' variety had slightly variegated foliage



A. cyaneum from China looks like grass, and Stephen joked he always had to remember not to weed it out



A. x proliferum is known as the Egyptian walking onion, it is a cross between *A. cepa* and *A. fistulosum*, and under really good condition four tiers of bulbils can form out of the top. These then propagate to new plants hence 'walking'. This is a very hardy and highly productive perennial onion.



A. victorialis has much broader leaves and is known as the Victory Onion. It is a supermarket food in Japan.



Garlic can be grown as a perennial and just harvested for the greens. If you want the cloves, Stephen believes you get better harvests if you leave it in for two years before harvesting. Start with a larger clove, and after two years you will have more, but smaller cloves. He theorised that leaving it longer allows for connections to form between the plant and the beneficial soil fungi.



A. scorodapresum is known as the sand leek /rocombole (top). It gets very tall and spread through producing basal bulbils. It can also produce two tiers to its flowers (bottom). If you want to grow this to harvest as a miniature leek then you need to think it out in the spring before harvesting the young shoots later on.



A. lenkoraneum may not have great food value but is highly attractive



A.nutans is known as Siberian chives, it has unusual curvy stems, broad leaves, and is an important food plant in Siberia



A.tuberosum is known as Garlic / Chinese chives, with lovely white flowers



The Welsh onion has nothing to do with Wales and the common name comes from a misunderstanding of the German word for foreign, here it is producing a second flush of foliage after being cut back previously



A.spirale is a later flowering type that was still yet to come in mid-August



A.schoenoprasum var. *boreale* comes from Siberia where flowering meadows of it can be found. It was producing a second flush of growth.



A.fistulosum is known as the roof onion and was originally grown on rooves as a form of summer fire protection, after the spring harvest, the succulent growth helping to protect the building



A.hymenorhizum was one of the tallest, reaching 1.2m



A.validum is known as the California swamp onion but does not need a swamp to grow so long as it is damp overwinter



I left the Onion Garden with my head swimming with alliums, but enthused by the huge variety of crops out there just within this single genus. Plant variety is crucial for sustainable growing as it can make the overall system more resilient to any shocks or changes. Where one variety might struggle under the new conditions, another might thrive and this garden is certainly a showcase of onions, with some sure to manage with the changing climate.

Next, we headed to a **community garden** Stephen Barstow is involved in at Vaeres Venners. Along the way I got an ode to stinging nettles as being a wonderful food crop apparently widely eaten in Norway. It is good to eat in soup, quiches, and apparently raw, something I was persuaded to try later in the day. By properly crushing it up I ate the leaf without incident, although I cannot say I was very impressed by the flavour. Another plant we passed on the way to the community garden was hogweed, *Heracleum spp* (Figure 34). This is a plant UK gardens are generally taught to fear due to Giant Hogweed. However, Stephen sees it as another great edimental. The young shoots, flowers, and seeds are all edible. The sap is phototoxic, but not toxic or poisonous. So long as the right parts are harvested when out of sunlight it is totally safe, and is in fact an important food stuff in some cultures. The word borscht originally referred to this plant and not to beetroot. Stephen dries the seeds of this plant, grinds them, and has totally replaced spices such as cumin with this plant.



Figure 34 Heracleum in flower (left) and the seed head nearly ready for harvest (right)

Vaeres Venners community garden has been going for around 18 years, having previously been a corn field. It is run in collaboration with an organisation that aims to promote more self-sufficiency in Norway and conserve varieties. Stephen has a plot, and also manages the World Garden (Figure 35), which is loosely based on his perennial vegetable book, and is arranged geographically, showcasing around 250 perennial vegetables. The main aim of the site is to promote the importance of plant diversity and what can be grown in Norway because most vegetables are imported despite a wide range being suitable for the climate. Broad beans and peas seem to do particularly well, without any of the standard issues seen in the UK (Figure 36). They are more of a mid to late summer crop here in Norway as opposed to a late spring and early summer crop in the UK, largely because the fungal diseases they would suffer from in a UK summer do not seem to have an impact here.



Figure 35 The World Garden



Figure 36 Incredibly healthy broad beans

Some of the standout crops perennial vegetables, mostly from the World Garden, were (Table 2):

<i>Urtica galioprifolia</i> is an almost stingless nettle with long narrow leaves		
Vos <i>Angelica</i> is a variety from Norway with a solid stem and is milder tasting than others. Laplanders used to ferment it as well as eat it raw. It is grown for seed to help conserve this old variety		
The Ostrich Fern can be eaten in early spring; it is the only recommended edible fern in Norway so correct identification is crucial. It is highly nutritious and should be picked in the spring. The North American natives used to use it quite a lot.		

Skirret



Cirsium carnum (Queen Anne's thistle) (top photo), which can be dug up for edible roots in the autumn, and *Cirsium oleraceum* (Cabbage thistle) (bottom photo), where the young shoots and top shoots are good vegetables. Stephen described thistles as a wonderful perennial vegetable due to their ability to provide food for us, their hardiness, and the way they support biodiversity.



Moss leaved dandelion (*Taraxacum tortilobum*) has a very dissected leaf and flowers a couple of times a year. It is a wild species that was grown as far back as the nineteenth century



Red leaved greater plantain is best harvested when the leaves are young, and readily self-seeds



German tarragon has a similar taste to French tarragon but is much taller



Rose root (*Rodeda rosea*) is an arctic plant where you can eat the young shoots as well as the roots, although they are hard to harvest without damaging the plant



Canadian wood nettle is a plant where the tip and leaves can be harvested, but care is need to avoid the burning sap, it will grow in dark conditions



Ligularia fisherii is popular in Korea, and some species or varieties flower much later than others, it is a good spring vegetable, but it is only this species that should be eaten



Perennial lettuce (*Lactuca perennis*) is mild tasting with attractive blue flowers, and survived a winter outside in Trondheim



Greek mountain tea (*Sideritis syriaca*) is great for herbal teas but can be hard to grow in hot weather and requires good drainage overwinter



Rubus arcticus is a creeping groundcover from the arctic, it had a few berries but not many



Wapato / arrowroot, a native American swamp root crop with really tasty tubers, it is frost hardy and was being grown in a bucket



Good King Henry, where the seeds can be used like quinoa, although the taste of the raw leaves has led Stephen to christen it 'Bad King Henry' (they taste a bit better cooked)



Rudbeckia laciniata is called 'Kiss me over the Garden Gate' as it is so tall



In terms of caring for these perennial vegetables, Stephen noted that they do have to dig up the root crops for harvest which disturbs the soil, but is also a good way to control the spread of crops such as Jerusalem artichokes.

We had a bit of a discussion about why perennial vegetables are not more widely grown given their sustainability advantages: permanent roots in the soil, less watering, less fertiliser, and less input from the gardener among them. Part of the reason will be to do with lack of public awareness, but there is also a lack of research and evidence into them, and some regulatory issues. In terms of research, Stephen mentioned that the EU is funding some projects on perennial vegetables in Austria. In terms of regulation, he is working with Eric Toensmeier in the USA, an authority on this subject, and a Swedish academic, to try and get certain perennial vegetables recognised as food crops by the EU by demonstrating their long history of use this way. Crops being focused on include *Hosta*, Caucasian spinach, Good King Henry, and *Dystaenia takaesimana*.

Fruit is grown in the community garden, with around 30 different types of fruit and nut trees planted. Here are some of the most noticeable (Table 3):

Nuts: walnuts, hazel, hickory, and butternut (related to walnut) among others – some of these are experimental but walnuts do crop in Trondheim (see photo). A black walnut on the site is doing particularly well.	
Dwarf mulberry	

The thimbleberry, *Rubus odoratus*, which had a few berries and was highly ornamental – apparently most people who have this just grow it as an ornamental as you need male and female plants for fruit



Golden current, *Ribes aureum*, which I had not seen before



Honeyberries, *Lonicera*, which were thriving and growing really well



Prunus tomentosa, which I took at first glance to be a redcurrant before realising this was incorrect. It was covered in cherry type berries



This community garden is run on a no-plastic allowed basis (although plastic hoses, watering cans, and the odd large container was in evidence), the focus is on biodiversity and sustainability, and therefore reducing inputs and pollution wherever possible. This means no standard allotment paraphernalia such as butterfly netting or horticultural fleece. Stephen admitted this did mean that insects such as carrot rootfly could be problematic, and cabbage caterpillars all have to be checked for and removed by hand, which seemed to be working. It also means no polytunnels, and there are no greenhouses either due to them not being robust enough in the weather. The growers just have to adapt and manage with what can go straight in the ground. A greenhouse was jokingly referred to as 'cheating'. This ethos also works itself out in that most of the compost is produced on site. They have a couple of deliveries of seaweed from the beach visible through the trees, which is good to use after a few years' worth of rain have washed away the salt, and have had a little bit of mulch delivered, but not much due to cost. Moreover, they try not to buy in new seed where possible, aiming to be truly self-sufficient and save seed, therefore slowing adapting cultivars to their conditions. They are also looking after some heritage cultivars this way. A few exceptions are crops such as onions and leeks where the season is too short to get reliable seed, and in these instances, they try to trade for seed with growers elsewhere in Norway. Although they do have a longer frost-free period than the UK due to the presence of the fjord, the general temperatures are lower. In terms of sustainability, there was even a giant polar bear cub sculpture from an art competition a while back made entirely out of drift and recycled wood (Figure 37).



Figure 37 A giant, recycled polar bear sculpture

The site is managed by 60-70 community members, each with their own plot, which led to great diversity (Figure 38).



Figure 38 A few general shots of this abundant and diverse community garden

A few other plants that caught my eye were:

- Runner beans growing strongly (they are generally struggling in the heat and drought of England this year): apparently some in Norway consider them poisonous so Stephen has had to reassure some anxious parents
- *Trigonella caerulea*, in the same genus as fenugreek, which was beautiful and being grown for its seeds (Figure 39)



Figure 39 *Trigonella caerulea*

- Celtuce (Figure 40), which is a type of stem lettuce where the thick stem is peeled for use in salads, Stephen had trialled six varieites but only three had worked: it likes an open, sunny location



Figure 40 Celtuce growing well

- A stunning single flowered *Dahlia* (Figure 41)



Figure 41 A beautiful *Dahlia* that caught my eye

- Himalayan Balsam (Figure 42) which, like in the UK, is an invasive plant that cannot be planted, but found its way here naturally. There was also a patch in Stephen's home garden. His approach seemed fairly laid back. It is good for bees, with one bee only having been seen on this plant in this area, and it is edible. The leaves can be harvested, as can the nutty flavoured seeds, although agility is needed here as the seed heads tend to explode!



Figure 42 Himalayan balsam leaves are edible

I left this beautiful community garden right on the fjord (Figure 43) with plenty of inspiration, and a real appreciation for how this group of growers had turned a previous corn field into what Stephen described as a slice of heaven on earth. I cannot disagree. So many people growing their own food in a beautiful setting with sustainability at its heart works for me.



Figure 43 Looking out across the community garden towards the fjord

The final stop in this packed day was Stephen's own home garden (Figure 44), which he described as an edible paradise. The garden is around 2300m² in size and is on very shallow soil over rock, although the rock itself is fertile. When a tree blew over, which Stephen viewed as a good thing as the tree survived and it brought the fruit and flowers closer to ground level for harvest, it revealed that the soil under the tree was much deeper than elsewhere as the tree had been turning the crumbly rock into soil.



Figure 44 Stephen's packed garden has a wonderful view out over the fjord

This was a wild garden which he said he was re-wilding, stepping back and letting nature take control. Over the decades he has been at this site, Stephen has had over 2000 edible plants growing, and he has decided now to stop weeding and let the plants compete in a sort of 'survival of the fittest'. Some of the smaller plants that were less productive anyway have lost out, but others have thrived and out compete the so-called 'weeds'. By doing this he says that he still gets more food than he can eat, especially in spring, and it makes him feel more a part of the overall system. Instead of trying to control it, he is part of it. All he does is try to stop the forest encroaching too much. Stephen is methodical in recording the plants in his garden, recording all of them, wild or otherwise.

Stephen is not a trained botanist, and thinks that this has allowed him to think sideways in terms of what food to grow and how to do it. He views himself as part of the garden, and has stipulated no building is to occur on this site in future years as it is too important to him and for biodiversity. He wants people who understand his ethos and what he is doing to carry it on. He has already ceded control of the space so it should be possible for someone else to continue doing that.

This year has actually been Stephen's best for harvests. It has been a little chilly but perennials do most of their growth in the spring and are therefore adapted to this. If it is too cold to flower that actually boosts harvests as flowering can decrease leaf growth. These perennial crops are generally more resilient in a changing climate. This makes these plants great in a changing climate: they need no watering or fertiliser, and Stephen said there have been some years nearby farmers have been warning of yield shortages when he has been overrun with food to pick. Stephen gets a large amount of his food from perennials in this garden, but it is complemented by some annuals. Fungi are crucial

to the harvests as they extract minerals and can build up an established symbiosis with perennials in a way they cannot with annuals.

Biodiversity has become increasingly important in the garden. Since 2020, 330 moth species have been recorded in the garden, which is related directly to the diversity of the plants as many of the moths are quite specific about which plants they need for their larval stages. As perennials often flower they offer nectar to bees, hoverflies, and other insects. This garden is nature friendly without specifically trying, and still produces as much food as before.

There were numerous plants of particular interest in the garden (Table 4):

Nettles are viewed as one of the key plants for this, acting as host to 60 species of moth and butterfly, while birds such as siskins feed on the seeds in winter. I also learnt that the English word net comes from nettle as nettle fibres were originally used to make fishing nets.



A Japanese vine scrambling up a yew tree next to the house. The vine doesn't fruit but is fully hardy and the leaves can be used in cooking. Stephen does eat the yew berries – so long as you spit out the seeds, they are safe and tasty



A dandelion collection, mostly from the UK, which is easy to propagate as the seeds are genetically identical to their parents



The oldest Caucasian spinach plant in the garden is 25 years old and has never had any fertiliser or water. It has sowed itself around and was in full flower. The young shoots are great to eat, and the flowers look like little stars



Peas and beans growing well despite only a couple of hours of sun a day



Hops, ferns and hazel thriving in full shade	
Ground elder, often feared as a weed, is good in salads all summer	
<i>Aralia cordata</i>, known as Udo, is popular in Japan for its young shoots up to 1m high. They are peeled and chopped into salads. The plant grows to over 2m in 4-5 weeks in the spring. It has attractive flowers for pollinators and produces berries in the autumn but does not appear to set seed, slowly clumping out instead.	

Rhus typhina has fruits that can make a lovely lemon drink



A Chinese walnut is about 20 years old having been grown from seed. Stephen didn't consider harvesting practicalities at planting time so the nuts are a bit out of reach – this area of the garden had to change due to some trees having to be removed because of honey fungus and the area was then replanted with resilient seed raised plants



The oldest seakale plant is about 40 years and still very productive. It is mulched each year with seaweed, and the young shoots are really tasty



A group of more potted up alliums waiting for space in the Ringve Chicago Onion Garden



Potatoes might not seem unusual but, despite growing them for many years, I still learnt about them on this trip. I knew that the fruits were poisonous but had never thought about the ability to propagate from the seeds they contain. They would not come true to type and the resultant potatoes can be prone to disease so buying tubers is recommended, but it may work and produce something interesting if someone had the facilities to try in a safe way



Oenothera has seeds that are good on bread



Mitsuba, the Japanese perennial parsley, is in the carrot family



Other useful and interesting pieces of information picked up from Stephen at his garden were:

- He does not use recipes as his crops are generally not found in them. Instead, Stephen employs what he calls 'jazz cooking', where it is loosely based on a recipe but he makes up much of it as he goes along.
- Stephen's last greenhouse was taken down by a storm about 15 years ago and he took that as a sign it wasn't needed, and now focuses on perennials. As most perennial vegetables are close to the wild species the seed tends to need cold stratifying. In order to do this Stephen sows the seeds into old milk cartons over winter (Figure 45). The mix is sterilised garden soil with sand for good drainage. It can take 2-3 years for the seed to germinate so Stephen keeps all the cartons that long before discarding. The generally sprout in spring.



Figure 45 Perennial vegetable seeds left to germinate under protective mesh

- The house has a cellar which is around 4°C overwinter and totally dark, used to overwinter plants such as artichokes and cardoons in total dormancy

- You don't need flat land to grow food crops. When he moved into the house in the 80's Stephen built a retaining wall to create some flat land (Figure 46), but now finds that it is the sloping areas that are most productive. The roots of perennials bind the soil together and crop well.

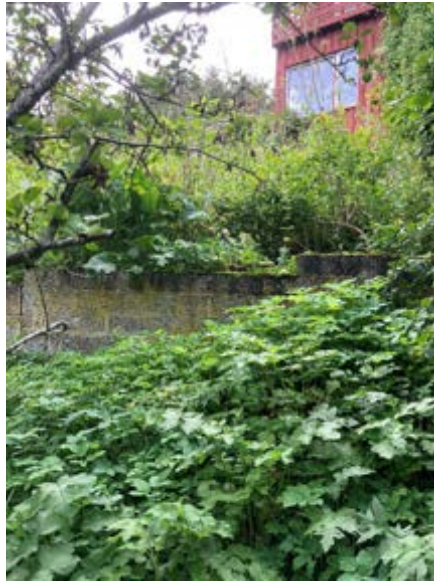


Figure 46 The retaining wall Stephen now feels he did not need to build

- Before he was familiar with the terms permaculture and forest gardening, that was what Stephen created. It was not something he says he set out to do, he just followed what seemed like common sense in terms of permanent, layered planting, and it is what emerged. A few of his favourite wild plants were moved into the garden simply for ease of harvest. He has preserved bits of the original forest as keystone habitats, removes sycamore every other year to stop it being too invasive and uses the wood for supports. Luckily there is no ash dieback in the garden yet but with time and climate change he is sure it will arrive at some point. The end effect is a delightful wild garden (Figure 47).



Figure 47 Spot the path in this wild garden!

This day with Stephen Barstow was one of the most mind-blowing I have experienced. He moved to Norway in the 80s as a wave scientist, but as a vegetarian struggled with the lack of options available as discovered perennials as a good way to grow his own in this climate. His knowledge was incredible, with no need for notes for any of the numerous plants he showed us. I was already familiar with many of them but there were plenty I have never eaten, and I look forward to trying them in the future. A diverse and sustainable diet based on perennial crops complemented by annuals seems like a good way forwards in the face of the climate difficulties we are all facing.

Thursday 13th

I woke today to heavy rain, which felt strange given the extreme heat health warnings, and government COBRA meetings on the subject, back home. Today it was time to head to the Jord Regenerative Growing Festival. This was held on a mixed regenerative farm with pigs, cattle, vegetable growing, and mobile chickens (Figure 48). This was the first festival they had held.



Figure 48 Left to right: pigs, mobile units for housing the chickens, part of the veg growing area

The talks aimed at homesteaders and home gardeners were held in the same tent as the opening speeches (Figure 49). Unfortunately, the opening half hour was in Norwegian, but I did enjoy some beautiful folk music. A kind fellow attendee told me that there is a close connection between folk music and agriculture in that part of Norway. He was visiting as his parent's farm had highlighted the massive deterioration in soil quality in the past 40 years, a similar issue to that facing much as UK agriculture.



Figure 49 The talks tent

There were a few stalls dotted around, including one with a display of different crops growing in the soil, and the impact of different root structures (Figure 50). They were also a few cross sections of growing plants showing the full root systems, including a potato (Figure 51). These were really

interesting to see, showing the huge variety, and highlighting how crop selection is crucial if you are aiming for a diversity of root structures to extract nutrients from different levels, and support the widest range of soil biodiversity.



Figure 50 A selection of crops with different root structures



Figure 51 A cross section of a growing potato

The first full talk I attended was given by Andrew McMillion of the Hurdal Guesthouse, a spiritual retreat centre with plenty of home-grown food as part of what they do. He has a background in ecology. The talk was all about permaculture and syntropic agroforestry. This talk was very technical and scientific in parts, but the main takeaways were about experimenting to find what works in your system, and creating a syntropic layout, one in which the energy flows are remaining in balance. You do not want to be taking more out of a system than it can sustain, or only sustaining it through pouring in huge amounts.

- We need a paradigm shift so we are not just focused on humans: the focus should be on reproduction, biodiversity, and permaculture, working with nature and thinking of the whole ecosystem not just people.
- The global climate and ecology crisis, along with a messed-up food system, is at the root of so many issues. Permaculture is a response - we don't need new technology, we have all we need in the fundamentals of ecology, energy systems, and biodiversity.
- Sustainable food ecosystems need the herbaceous perennial edible layer which comes back and provides food every year. This layer is missing from many orchards so needs adding in.
- A syntropic system is one where you work with life to build it up. Industrial agriculture breaks down more energy than is created because of the burning of fossil fuels, among other factors. However, a forest garden offsets the impacts of entropy and grows and develops in a stable state. This system is biocentric not anthropocentric – syntropic agroforestry aims to conserve energy. (Life in Syntropy is a YouTube documentary that outlines this approach.)
- The system changes and develops over time: entropy and breakdown are not bad, they are necessary, but need to be balanced out
- When in doubt, sow more seeds: be reproductive as well as productive.
- Andrew's project in Norway has involved learning what works in this situation. They have a rat issue but have noticed pears and larger apples are left so are avoiding dwarf apple trees. They are planning so that in 100 years the area will be a layered, natural looking system. Labour is the reason this is not done on a larger scale as it is expensive to harvest in a mixed system. They are working on creating producer communities and associations who work and grow together.

The second talk was also by Andrew McMillion and looked at seed saving, particularly of winter squash. Andrew is part of KVANN, the Norwegian seed savers association Stephen Barstow is also heavily involved in. They are in the process of saving and preserving a diversity of cultivars and useful plants, working with a network of farms across Norway and a wider group of EU organisations.

- A network of vegetable seed saving is needed. Only 0.5% of the vegetable seeds used in Norway are produced there, and the aim is to double this in the next few years and then keep doubling.
- Locally adapted seed is crucial for sustainability.
- A healthy ecosystem is reproductive as well as productive
- Most growers are seed savers at least in a limited sense, and we need diversity not lots of seeds being produced for money and corporations.

As well as these basic points, the talk involved an in-depth look at how to save seeds and breed new varieties, with a focus on winter squash. Andrew says he likes pumpkins so much he identifies as one! I would say that my main takeaway from this talk was that seed saving is an involved process that requires a lot of knowledge and commitment, but it can be enjoyable. The isolation needed between plants is probably the biggest difficulty: with squash it would require an entire allotment site to only grow one variety of squash which is not feasible, although barriers could address this.

The final element of the festival which I attended was a field walk around a community supported agriculture project. There are three different vegetable growing projects at the farm, the CSA, one for refugees and one for school children.

- The CSA started in 2016, and was initially entirely volunteer run but now employs someone part time and it was her who gave us the tour
- Initially the project had a four-section crop rotation with 90 1x10m veg beds, but it was too much to manage with the weeding so now it is 60 beds. The area is divided into 8 and they are rotated around: 2 sections covered in plastic each year to control weeds; two with green manure to help the soil, alongside some low demand crops such as legumes; 2 with high demand crops like squash; 2 sections with other vegetables.
- The crop division is partly based on nutrition but also consider families. They have some club root issues, which appears to be in the soil as it appeared in the first year of the project. It is about trying to find the right balance.
- The climate means that some insects are not a big issue like they are in the UK.
- No motorised vehicles are used: a horse helped mound up and plough some of the beds. The beds are slightly raised due to moisture, although this veg area is better than the other two which sit wetter. They make more use of raised beds. The CSA uses raised beds for certain crops, particularly herbs and salads. The raised beds are just that little bit warmer and drier (Figure 52).



Figure 52 Raised beds for some crops

- Around 70 people are involved in the CSA and pay to be involved and come to harvest. 20-30 turn up regularly to the once-a-week session, the sessions are a bit more frequently in summer. Various systems, such as colour coding signs, have been used to try and indicate what to harvest, weed, and plant, but nothing is full proof. People harvesting or clearing the wrong things are regular issues. People can come at any time to harvest and work, but communication is tricky. Some people are too cautious but others not enough.
- Grow-your-own seems to be getting more popular but people need to have fun when they come.
- Onions seem to be loving the wet year (Figure 53). Those planted from sets in May are much more successful than those sown as seed inside in February. Two of the onion beds were mulched with cut grass in the spring, and those plants are a much deeper and healthier green, although they have more weeds.



Figure 53 Onions doing well in the wet

- Feeding the beds: green manure (Figure 54) in the rotation which has a mix including plants such as phacelia, clover, vetch, sunflowers, there is some brassica but this is not wanted due to the rotation and they are trying to rogue it out. The green manure is chopped back in autumn and then covered with plastic over winter so the nutrition does not wash out. Bare soil in winter would be vulnerable to the winter storms – can sow rye and a few crops are left but most is covered with plastic. They also feed with cow, sheep, and horse manure in the spring. Most is from the farm, but the horse manure also comes from local farms where they know what went into it to avoid herbicide issues. They also use chicken manure pellet, do soil analysis to check for any deficiencies to correct, and have previously put down a shell compost for a slow and long-term delivery of calcium. The shells also act as a slug barrier.
- Compost extracts and some microbiology applications are also used. They use a bokashi system to break down kitchen waste (Figure 55). You put the kitchen waste in a large bucket with a lid, and then add a bought starter. This is a form of fermented compost that breaks down and dissolves into the soil really fast and gives lots of nutrition. It is ready to mix in

after 2 or 3 weeks. It is not fully broken down, but will break down quickly in the soil, with the exception of avocado and egg shells. Even citrus breaks down fast.



Figure 54 Green manure mix



Figure 55 Bokashi system

- Insect nets are used to cover brassicas (Figure 56), but the net is taken off once harvest starts as it gets in the way too much. Crops like kale and sprouting broccoli are harvested too fast for the insects to get established. Some brassicas are struggling with too much moisture under the nets.



Figure 56 Insect nets covering growing brassicas

- Some leeks can stay out all winter but they can't be harvested as the ground gets too hard so instead, they are harvested and stored. Also, deer eat the leaves once the snow comes. Some kale and sprouts are left out over winter but the deer also get them. They tried covering with a net to keep the deer off, but it froze into the ground so the crops were also protected from people! Now they just leave the plants and harvest what they can until the deer get the rest. Last winter was a hard one and very little garlic survived.
- Broad beans: c.3% of people are allergic, and there is a weevil that affects the pods in the summer by eating the beans inside. They are not a hugely familiar crop in Norway but getting

better known. They should always be grown in vegetable systems as they are really good for soil.

- People seem to want a lot of carrots (Figure 58), but they germinate slowly in about 10-14 days and need a lot of weeding and careful watering. This year they sowed them and then covered with plastic for a week or so and they germinated really well with the plastic keeping moisture in the soil. The carrots were following a year of plastic on the soil which means that weeds are not too bad.



Figure 58 Carrots doing well this year

- In hot summers the areas under the plastic gets very hot to kill off weeds. The area is not too large so if soil life leaves, they said they feel it can move back in. They need to manage the weeds somehow, and there is more plastic in winter to protect the soil, but it can get blown off by winter storms. The plastic is made of corn starch to biodegrade, but that doesn't work in this climate, it just breaks down into bits, so they are gradually replacing the corn starch plastic with a more robust and reusable plastic. This includes mypex which apparently, they think they can stop fraying through cutting the right way and heat searing the edges.
- Planted a few trees around the edge as buffer plants and to make the best use of the space.

- They are growing dwarf beans through the black plastic for extra warmth and to stabilise the climate (Figure 59). They sometimes do the same for squash: they did not this year and wish they had as it has been a chilly and damp season.



Figure 59 Dwarf beans growing through black plastic

- Bad flea beetle on the turnips as well as the club root issues (Figure 60). With the rotation they will not grow this crop here for another eight years, but club root just seems to be in the soil so they just manage as well as they can. The turnips over in the school garden were doing a lot better, possibly due to the addition of more compost (Figure 61). The later plantings of swede had noticeably less flea beetle.



Figure 60 Turnips struggling with flea beetle



Figure 61 Turnips doing much better in the school garden at the farm

- Hokkaido squash recommended for Norway as it is reliable for ripening. Spaghetti squash is the most reliable in this climate, although they do not store well. In the school garden the pumpkins are grown on a mound with plastic underneath (Figure 62). This is helping to keep the fruits drier so they do not rot.



Figure 62 Squash growing really well on a mound

- They are gradually establishing asparagus but it is struggling a little (Figure 63). They have it growing through mypex, which supresses the weeds but stops the clumps spreading out. They are trying to add more asparagus each year but are having difficulties getting it through the first winter. They have tried it inside in containers and outside for the first winter. It seems to like slightly sandier soil, some fertiliser, and some mulch.



Figure 63 Asparagus struggling to get established

- They raise some of their own small plants in the polytunnel but partly by some in as they don't have enough space to produce all of their won. They start most things inside, but carrots, peas, broad beans, and parsnips direct.
- They buy in their seeds as it is too much work to produce their own.

- The school garden had wood chip on the paths but the CSA has been avoiding this due to concerns that wood chip takes a long time to break down in this climate so it might steal some nutrition for a prolonged period. They have tried some straw on the paths to suppress weeds.
- You have to try and learn by doing: each season is different and the beds are all different as well. If you ask two gardeners you will get to different responses about what to do, so you need to learn your own area.
- In the polytunnel, which was covered in rigid plastic, they are growing padrons, tomatoes, basil, celery, and a courgette that self-seeded through the compost and is the healthiest in the garden (Figure 64). There are chickens in the polytunnel over winter so the soil is very fertile. It is tricky watering as the basil and celery need a lot more than the tomatoes. It is mainly cherry tomatoes as they ripen fastest, but people always seem to pick the tomatoes too early. With the padrons, they saved seed last year, but appear to have saved from a hot and spicy one so they are going to buy more seed next year.



Figure 64 Left to right: tomatoes in the polytunnel, a healthy courgette, padrons and celery

The main aspect that struck me from walking around the CSA was that the basic principles of vegetable growing are the same everywhere. The topics discussed were crop planting systems, feeding the soil, watering, and seed raising among others. However, I was also struck by the differences. The insect and disease struggles have similarities but also differences in Norway, and the climate was a major difference. Where we are talking about water conservation and drought, they are struggling with excess water!

I left the regenerative festival encouraged by how the issues that are important in the UK, such as soil conservation and sustainable growing systems, seem to be just as salient among people in Norway. This was a small gathering of around 100 people, and hopefully the festival will be repeated and will grow in the process. The location is certainly stunning enough to attract more people! (Figure 65) The challenges facing growers around climate and soil are universal, but the messaging about needing to experiment to find what best suits a specific situation are important. The principles might remain, but growers need to be adaptable with the specifics.



Figure 65 The scenic location of the festival

Friday 14th - Reflections

Today I had to wake up silly early to catch my plane home after an all too short trip to Norway. The plants and cultivars I had seen and experienced will stick long in the memory, but a part of the trip I had not expected when I arranged it was that I was going to practically experience the bizarre changes occurring in our climate. In Norway they were saying it was a bad summer as it was chilly and wet, whereas once I got off the plane, I was just in time to catch the tail end of a fifth summer heatwave in the UK and was back in drought.

Since the trip I have had the chance to reflect upon what I saw and learnt. The main purpose was to learn about perennial vegetables and sustainable growing systems, which I certainly did, and the dramatic climate differences between Norway and England simply highlighted that changes in our food system need to occur sooner rather than later. I saw a wide range of these perennial plants there were able to survive and even thrive in Norway, and am going to use this knowledge at Wisley as I aim to introduce some more resilient perennial vegetables into the plantings that I do there, complementing the annual crops I predominantly grow now.

The visit to the Botanic Gardens and then the Jord Regenerative Festival both enabled useful discussions with other growers about the challenges they are facing with climate change and the approaches they are taking to addressing this. A focus on soil health and sustainable planting communities came through strongly and coincides with a main focus of our work at Wisley.

I also gained good ongoing networking opportunities from the trip and already have arrangements to meet up again with Stephen Barstow and Andrew McMillion. The knowledge gained from this trip will be shared through my work at Wisley, including the displays created there and regular visitor interactions. I have already published a couple of blog posts on the RHS website focusing on perennial vegetables and the Norway trip, and will continue to share the information in talks, on social media (allotment_life_with_Liz), and in visitor interactions in the garden. The sustainability information and practical advice on perennial vegetables will also feed into the book I am writing on allotments.

This trip was a wonderful experience. I am passionate about the importance of sustainable food growing, and my increasing understanding of the role that perennial food plants can have in this.

Appendices

For more information, please see the following links:

- Jord Festival: <https://jordfestival.com/en/>
- Ringve Botanic Gardens: <https://www.ntnu.edu/museum/ringve-botanical-garden>
- Stephen Barstow: <https://www.permanentpublications.co.uk/stephen-barstow/>
<https://www.edimentals.com/blog/?author=1>

Acknowledgements

I would like to thank all the people who kindly gave up their time to meet with me on this visit and were able to show me around. The experience was truly eye opening and well worth the visit. I would also like to thank the Merlin Trust for the grant as it enabled me to go on this bursary tour, a trip which I am sure will be hugely helpful as I progress in my career.