



# Farming Connect Management Exchange

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France, England

Growing and processing organic herbs for Welsh teas

May – July 2022





# 1 Background

My partner and I are new entrants to horticulture. We run Nevern Valley Veg / Llysiau Cwm Nyfer, a less than 1-acre, minimum-till market garden between Nevern and Felindre Farchog in Pembrokeshire. We grow a diverse range of vegetables and edible flowers to supply local shops, restaurants, and a small weekly vegetable box scheme. We own 10-acres on land and aim to expand the growing area over the next few years.

My management exchange aimed to explore commercial herb growing and processing, with the aim of informing a diversification of the business. I wanted to look at the potential of growing herbs alongside the vegetable production, with a particular focus on herbal tea production.

The specific questions and topics I wanted to explore were:

- What herbs could be successfully grown in West Wales commercially?
- What are the requirements and equipment needed for processing herbs into teas (from seed to cup)?
- What learning from the herb growing industry in Brittany can be transferred to the Welsh context?

To explore these questions, I chose to visit Brittany in May 2022. This choice was due to the relatively high density of herb growers (100 registered producers), the similar climate to Wales. I was able to find a 5-day training programme offered by tea producer, 'Terres de Tisanes<sup>1</sup>', and because I speak French communication was easier.

Following my trip to Brittany, I was lucky to have an underspend on my budget and therefore was able to visit an additional two farms in South Somerset in July 2022 – the Organic Herb Trading Company, and Harpford Herbs.

## 2 Itinerary

## Day 1 – Terres de Tisanes

This was the first of a 5-day training event covering all aspects of herbal tea production, from cultivation to bagged product.

Alexandre Bompard, Founder and Owner of Terres de Tisanes explained that he started the business following a career in international development. He had been running a rural development herb growing and processing project in Nepal and discovered a passion for growing and an interest in the medicinal qualities of herbs. He retrained in agriculture, and set up the business 12 years ago, taking over the brand (and sales outlets) from a retiring herb grower.

**Terres de Tisanes** sells 29 herbal teas (9 blends and 20 individual flavours). They grow many plants on site, and buy in additional dried herbs, especially those which don't grow as well on their land or in Northern France (e.g. ginger, cinnamon, thyme ...). The business has had its ups and downs – at its best turning over 70,000 euros a year but dipping to 30,000 euros some years. Alexandre, the owner, considers that the business needs 1.5 FTE staff to run the 1-hectare site and business. He currently works full-time and employs a staff member part-time (12 hours a week) during the summer season

<sup>&</sup>lt;sup>1</sup> <u>https://terresdetisanes.fr/</u>

(4 months/year). He also welcomes students for short periods on work experience. The main sales avenues are via shops (30-35 shops currently), and some direct sales. A 20g packet is sold at 4 euros direct, or 2.85 euros wholesale.

Alexandre gave an in-depth description of the **medicinal**, **perfume and culinary herb industry** in France.

- There are 67,500 hectares of land farmed for medicinal and aromatic herbs in France<sup>2</sup> (32,000 hectare increase since 2016). 38,000 hectares are dedicated to lavender, lavandin, clary sage and 'perfume' plants, 10,000 hectares to culinary herbs and 20,000 hectares to medicinal herbs (with 13,000 hectares of these are controlled by one enterprise, growing herbs for the pharmaceutical industry).
- The area of land under herb production has increased by 32% between 2017 and 2021, but still makes up less than 1% of agricultural land in France.
- 18% of herb cultivation is certified organic.
- 6,527 producers (100 of which are in Brittany)
- France 150 million euros in sales of unprocessed herbs, 5 billion sales of processed products.

Despite what look like fairly impressive numbers compared to the UK, France still imports the majority of its herbs.

French growers benefit from much better support as new entrants than in the UK (up to a 30,000 euro grant to get started). There are also local, regional, and national herb growing market reports and growers' associations. A few **useful resources** for those considering growing herbs (and who speak French!) are found below:

- Le Comité des plantes aromatiques et médicinales (CPPARM)<sup>3</sup> the herb growing industry body in France. Their website has loads of useful information, including guides on how to start a herb farm and case studies<sup>4</sup> which detail set-up costs, production methods and markets.
- PPAM de France<sup>5</sup> French herb growers' union.
- Conservatoire National des Plantes Medicinales, Aromatiques et Industrielles<sup>6</sup> conservation of plant medicinal and culinary herb species, as well as publication of reports and technical information on cultivation.
- Institut Technique Interprofessionnel des Plantes a Parfum<sup>7</sup> French research institute for perfume, medicinal and culinary herbs. They have created disease sheets for common herbs, which can be useful. Their website is also in English!
- GAB 56<sup>8</sup> a regional organic growers' group in Brittany, where a high proportion are herb growers and therefore some of their reports/newsletters are useful.

<sup>&</sup>lt;sup>2</sup> 2020 figures, from France Agrimer report 'Marche des plantes a parfum, aromatiques et medicinales', https://www.franceagrimer.fr/fam/content/download/67749/document/20211212 MARCHE PPAM 2020.pd f?version=2 accessed 24/08/2022

<sup>&</sup>lt;sup>3</sup> <u>https://www.cpparm.org/</u>

<sup>&</sup>lt;sup>4</sup> <u>https://www.cpparm.org/publications/fiches-fermes-ressources/</u>

<sup>&</sup>lt;sup>5</sup> https://www.ppamdefrance.com/

<sup>&</sup>lt;sup>6</sup> https://www.cnpmai.net/en/

<sup>&</sup>lt;sup>7</sup> <u>https://www.iteipmai.fr/en/</u>

<sup>&</sup>lt;sup>8</sup> <u>https://www.agrobio-bretagne.org/reseau/gab-56/</u>

• A useful guide for new entrants/those diversifying into herb growing can be downloaded for free<sup>9</sup> from the organisation Coordination Agrobiologique Pays de la Loire<sup>10</sup>.

**Regulation** of the industry, particularly regarding the medicinal qualities of herbs was also discussed in detail.

Herb tea is generally sold as a food product, rather than a medicinal product. It is illegal to say that herbal products will have health benefits, or give advice on how to take the product (e.g. how many times a day to drink it). These same rules apply to the UK, as far as I am aware.

Good sources of information in the UK I have found are Woodland Herbs, which explain the different categories into which products may fall<sup>11</sup>, and Hants.gov.uk<sup>12</sup>.

In the afternoon, we visited the herb fields and learnt about Alexandre's site and growing methods.

Terres de Tisane's site is 1-hectare in size, orientation southeast. It is divided into two fields either side of a stream and surrounded by mature trees and hedgerows. The soil is PH 5-6 and high in clay and silt. So fairly heavy land. Reeds, angelica and ragged robin grow wild in one area which is wet underfoot all year round. However, the topography is varied, sloping down to the stream in the middle, which allows water to drain from some areas. Alexandre has taken advantage of these areas to grow plants such as lavender, thyme and oregano.

The site was originally very compacted as it had been used for cattle grazing in the past. Initially, it was shallowly rotovated and planted with white mustard over the whole site, then turned in after 6 months. This was to increase fertility and break up the soil (by rotovating), and to make dock removal easier.

Generally, Alexandre has adopted permaculture principles and is trying to find a balance on his land between wild and cultivated. When managing his land, he often asks himself 'is it really necessary to intervene?', before making a decision.



*Left: meadowsweet, right: elder in flower surrounded by nettles.* 

Alexandre maintains three 'zones' on his land – natural, cultivated and trees.

<sup>&</sup>lt;sup>9</sup> http://www.biopaysdelaloire.fr/wp-content/uploads/2018/07/guide\_technique\_ppam2018-web.pdf

<sup>&</sup>lt;sup>10</sup> <u>https://www.biopaysdelaloire.fr/</u>

<sup>&</sup>lt;sup>11</sup> <u>https://www.woodlandherbs.co.uk/acatalog/herbs\_legislation.html</u>

<sup>&</sup>lt;sup>12</sup> <u>https://www.hants.gov.uk/business/tradingstandards/businessadvice/food/foodanddrink/herbalmedicine</u>

- The natural areas include the hedges and borders, which are also harvested (bramble, nettle, ash leaves, elderflower). These are maintained to ensure good yields, for example cutting down willow to stop the natural transition to woodland.
- The cultivated areas are maintained for the more fragile plants which would find it hard to compete in the wild on his site, e.g. camomile, lemon balm, thyme.
- Alexandre has also planted a number of useful trees towards the bottom of the site eucalyptus globulus (the medicinal eucalyptus), lime (linden) and apple trees. He is considering fruit teas in the future.

Beds are irregular in size, depending on the lie of the land. The largest are 30m in length, the shortest are about 10m. Paths are wide to allow the passage of a compact tractor and are left to grass to maintain humidity in the soil.

Rotations are on a five-year basis, meaning that crops remain in the same place for 5 years.

Bed management depends on the crop – generally, the difference in management depends on whether the plant is a perennial or an annual. The perennials stay in the same place for approximately 5 years, when they are usually replaced to ensure continued vitality and yield. Most perennials need minimal bed management intervention, except the odd bit of weeding. Many of them have 'weeds' growing amongst them (grass, nettles, etc.), but these are cut occasionally when they look like they could overwhelm the plant or get in the way of harvesting.

Annuals and some of the less hardy perennials are planted into rotovated beds, then mulched. The mulch used at Terres de Tisanes is buckwheat hulls, which is bought for 4 euros a large sack. Buckwheat is one of the only crops that doesn't require chemical inputs in conventional farming, which makes it a good choice of mulch. However, it is very light which can mean it flies away in the wind. Alexandre has used ramial woodchip in the past but his opinion was that it was too expensive to use often unless you can produce it on site.

#### Day 2 – Terres de Tisanes

The day consisted of a tour of the Terres de Tisanes herb growing field, this time focusing on **what they grow and why**. This was the chance to learn about the medicinal qualities of the herbs grown at Terres de Tisanes, as well as what grows well in their fairly wet, clay soil (similar to many sites in Wales).

Terres de Tisanes grow or harvest the following herbs: hawthorn (flowers, leaves), lime (flowers), elder (flowers), lemon balm (leaves), fennel (seed), nettle (leaf), German chamomile (Matricaria recutita) and Roman chamomile (Chamaemelum nobile) (flowers), Damascus rose, blackcurrant (leaf), meadowsweet (flower, leaf), peppermint (leaf), Moroccan mint, lemon verbena (leaf), hyssop (leaf, flowers), oregano (leaf), lavender (flower), thyme (leaf, flower), lemon thyme (leaf, flower), rosemary (leaf, flower), ash (leaf), marshmallow (leaf, flower), angelica (root, seed), apothecary rose/rosa gallica (flower), bay leaf (leaf), raspberry (leaf). Terres de Tisane also buys in some herbs from areas with different climatic conditions (further south).

An interesting market insight worth noting was that all herbs grown have medicinal qualities, but herb tea is often purchased for the taste and pleasure of drinking herb tea. Therefore, it needs to taste and look good!

In the afternoon, there was a session on gemmotherapy – the health benefits of plant buds.

#### Day 3 – Terres de Tisanes

Propagation was the subject of day 3. I was surprised to see that Terres de Tisanes does not have a polytunnel and wondered how they propagate their plants. In fact, most are propagated via division, cuttings or new shoots, and not from seed. Alexandre prefers this to planting from seed, as young plants are more susceptible to pests and diseases.

Propagation can be done in autumn or spring. Alexandre prefers to do his propagation in spring, as he feels the plants do better. He divides or takes cuttings and puts them directly into the ground, waters and replaces any that do not survive.

Fennel and calendula are direct sown from seed, but they are the exceptions. Lemon Verbena is also more difficult, as it is native to south America. This is a plant which can overwinter outside if protected, but when it becomes less productive Terres de Tisanes buys in new plants.

A bramble and willow rooting solution can be made to encourage new root growth/establishment. This is made by soaking willow and bramble in water at a 50:50 ratio for 3 weeks. The cuttings or divisions are dipped into this solution before planting in their new positions.



Lemon Verbena regenerating from the base, surrounded by Buckwheat mulch. May 22.

#### Day 4 – Visits to Baume Shanti and Ferme de Kerdelam

On day 4, I visited two other herb producers in Brittany. Baume Shanti and Ferme de Kerdelam.

#### **Baume Shanti**

Baume Shanti<sup>13</sup> is an off-grid herb farm, specialising in essential oils, hydrosols, balms, sirups and tinctures. They have a kitchen on-site for producing sirups, balms and other products, and have rented out a kitchen to an artisan bakery which opens several times a week. The visit started with a tour of their home-made wind turbine, water harvesting systems and solar control board.



<sup>&</sup>lt;sup>13</sup> <u>https://www.baume-shanti.fr/</u>

The process of distilling essential oils and 'hydrosols' was then explained. Baume Shanti have recently upgraded from 45-litre copper distillation equipment to a 250-litre second-hand distiller (costing approximately 15,000 euros new). They produce both essential oils and hydrosols from this equipment. Hydrosols are waters which are produced during the distillations of plant material. They have some of the same qualities as essential oils but are less concentrated. They are produced through the same process (steam) but are what remains when the essential oils have been removed. Therefore, hydrosols are a by-product of essential oil making.

Baume Shanti explained that to make 100ml of lavender essential oil uses 10kg of fresh plant material. Hydrosols are not well regulated, which means that you could in theory sell all water used in the process as hydrosols. However, Baume Shanti are members of the union 'SIMPLES'<sup>14</sup> and follow their rules of 1kg plant material making 1 litre hydrosol. The SIMPLES union certifies herbal products which protect the environment, conserve floral resources, follow high-quality production standards and respect consumers.

Although drying is a very small part of their business, Baume Shanti also have a **drying room** for herbs. This is a cupboard in the upstairs room of the barn. It is well insulated, warm, and rarely needs the addition of a dehumidifier. They use the heat of the barn roof to dry the herbs and open the doors for air circulation. The dryer has a fan installed below the drying Drying room at Baume Shanti racks, and a hole in the wall above for the humidity to exit.



We then visited the **herb field** to discuss cultivation. Baume Shanti grow on about 4,000m<sup>2</sup>. They grow about 30 different varieties of herbs, and wild harvest 10 or so more. Other than the herbs already seen at Terres de Tisanes, Baume Shanti also grow carrot for oil, cornflowers, clary sage, burdock, comfrey, geranium and savory.

They use mechanised cultivation, using a small tractor as well as hand tools. The field works on a permanent bed system, and they are working towards no-till growing due to the benefits to soil health.

The beds are organised so that every other bed is a perennial bed. This is useful for management, as weeding is more difficult with perennials, which remain in place for several years. Beds are 40m by 1.2m, to accommodate the tractor.

Although many perennial plants are grown, they are replaced every 5-10 years when they become woody or stop producing. Baume Shanti are considering growing more of their wild harvested herbs on the farm, as they are concerned by the increasing pressure on wild plants, and potential contamination from polluted rivers and watercourses.

Whilst at Baume Shanti, we were able to see a permanent bed being prepared for new planting using the tractor and 'cultibutte'<sup>15</sup>. This tool was developed by a group of farmers called L'Atelier Paysanne, who develop open-source tools and equipment for use by small-scale farmers. The cultibutte allows a crop to be terminated and a bed reformed with minimal soil disturbance – the soil is not turned or

<sup>&</sup>lt;sup>14</sup> <u>https://www.syndicat-simples.org/</u>

<sup>&</sup>lt;sup>15</sup> https://www.latelierpaysan.org/Cultibutte

ploughed. L'Atelier Paysanne have translated much of their material into English, it is worth visiting their website<sup>16</sup>.



Using the cultibutte to terminate a permanent bed

#### Ferme de Kerdelam<sup>17</sup>

Johann has farmed the 6.5 hectares at Ferme de Kerdelam alone for 7 years, with help from WWOOFers<sup>18</sup> and trainees. He recently bought an additional 7 hectares of forest adjoining his land. 4.5 hectares are meadow, 0.5 hectares of apple trees, 300m2 of covered growing, less than 0.5-hectare market garden. The site also houses a farm shop and space to run educational sessions for schools.



Johann is interested in polyculture systems. To begin with, the main land use was animal rearing for meat (sheep). He has since moved away from this system, reducing stocking rates from 60 to 7 sheep.

The farm produces various crops, which are mainly processed to add value before sale. These include eating apples (sold fresh), vegetables (focusing on a few main crops sold fresh and preserved – courgettes, squash, tomatoes, melons, strawberries ... preserved as pickles, chutneys and jams), medicinal and aromatic herbs (sold as herbal oils (macereux huileux), sirups, herb teas and tinctures). The preserved veg is mainly to use up surpluses and add value. Market gardening is not a big focus for

<sup>&</sup>lt;sup>16</sup> <u>https://www.latelierpaysan.org/</u>

<sup>&</sup>lt;sup>17</sup> <u>https://www.kerdelam.com/</u>

<sup>&</sup>lt;sup>18</sup> https://wwoof.org.uk/

the farm but has been developed in the past by certain long-term WWOOFers. The farm also has chickens, but they are not a commercial venture.

Permaculture and forest garden principles are used across the farm. Johann is moving more towards tree products and has put in hedges to break up the fields with the support of a local non-profit 'Breizh Bocages'. The hedges were installed for ecological reasons, to help drain the wet areas of land, and for their products. The main species are lime, hazel, elder and chestnut. These will be harvested and dried for including in herb teas, as well as producing nuts. Johann's aim is to put in many more hedges, including species such as peach, Sichuan pepper and maple (for syrup). He has also planted some eucalyptus globulus trees, for herb tea production.

The herbal beds have got a bit overgrown, and Johann is planning to re-establish them. He has had some success with growing herbs under fruit trees in linear forest garden strips. For example, a line of apple trees underplanted with blackcurrant (leaf crop), comfrey (leaf/root crop and adds potassium to the soil), rose and other lower growing plants. The problems he has found here is that it was difficult to establish, and the diversity makes harvesting more time consuming. There is just one hedgerow like this on the farm. However, he is aiming to plant some of his 7 hectares of forest up as a forest garden, so is persevering in some areas.

The herbs grown include artichoke, blackcurrant, rose, peppermint, St John's Wort (hypericum perforatum) and heather. He also has some vines growing up a fence. Johann's rosemary and thyme struggled in the wet ground. He will move them this year to a different part of the site.

The veg beds are as no-dig as possible. Johann uses hay mulch to supress weeds and maintain moisture but has found it is a good habitat for voles and slugs. His strategy is to let plants get well established before adding mulch, as they are bigger and more able to resist the pests. However, he is thinking of moving towards more plastic mulches in future.

Propagation is done in the polytunnel and in a greenhouse/chicken run made from reclaimed materials. The heat of the chickens is used to warm up the greenhouse at the start of the season. Their eggs are laid behind a lift-up wooden flap, at chest height, which makes collection easy. The greenhouse also contains 3 large black water butts, which heat up in the day and release the heat back into the space at night.

A large agricultural two storey building has been constructed by Johann and friends at the entrance of the farm. It is a timber frame, timber-clad structure with straw walls and clay render on the inside. This houses the drying room, a commercial kitchen, a shop and a huge open space which is still being organised and finished off. Upstairs are rooms which may be rented to artists or others. The build was financed 30% by the European Union, for diversification of the business activities.

The **drying room** uses solar energy and natural ventilation. A large south-west facing window has a cavity behind it, followed by a clay/bottle wall. The clay provides a thermal mass which stores and releases the heat to maintain a steady temperature of between 20 and 25 degrees Celsius during the drying season (May to September). Air comes in through slits at the bottom of the wall and rises through the drying herbs. Johann does not use any additional heating or ventilation.

The herbs dry on racks made from pine and cheese cloth. Johann has created two frames that fit tightly into each other, so that the cheese cloth can be held in place without staples. It can also be removed to clean. The racks are placed at 30cm intervals, and the entire rack has a drying area of 30m<sup>2</sup>. It takes about 3 days to dry nettles (which is the same as at Terres de Tisanes).

Herbs are used in the chutneys, jams and pickles produced by the farm, as well as teas and 'macereux huileux'. They also sell seed bombs and Sichuan pepper (in small jars). They started with a large range of teas but have reduced this to 4-5 mixes now. Tea is sold in packets of 20 – 60grams. The cost is 4 – 10 euros.



The sales avenues consist of direct sales at the shop, and to local shops, especially Biocoops<sup>19</sup>. They sell everything under the 'food' banner, to avoid the complications of registering products as cosmetics and having to pay a higher VAT rate (20% for cosmetics compared to 5.5% for food). The shop doesn't attract a lot of customers, as it is in the countryside. They have started running events to bring more people to the farm.

#### Day 5 – Terres de Tisanes

The final day at Terres de Tisanes was spent looking at processing and drying.

Terres de Tisanes uses a dryer 'a l'aire libre', meaning that they very rarely use fans or heating to dry their crops. They have chosen this type of dryer as it is simple, low-tech, cheap and results in a quality product. Solar dryers and electric dryers are other possibilities.

The dryer is in an upstairs room with a blinds on the windows to stop ultra-violet rays from reaching the plants. The room has  $20 - 50m^2$  of drying space on racks and other structures.

<sup>&</sup>lt;sup>19</sup> <u>https://www.biocoop.fr/</u>

Terres de Tisanes aim to maintain the temperature at around 20 degrees Celsius in the room throughout the season, and to keep humidity levels below 65%. They do this using an electric dehumidifier. They do sometimes open the windows to get an air flow, but not if it is too humid outside. There is also a heater, which is only used when the temperatures fall below 20 degrees Celsius.



The frames are 80cm x 80cm, made from lightweight pine batons. They slide into a lightweight frame with shelves at 20cm intervals. They could be closer, but it might take longer for plants to dry and could increase the risk of mould developing. They are draped in organic cotton cheesecloth, which is stapled into place with a staplegun.

Terres de Tisanes also uses pallets for larger drying spaces, which are draped in insect netting. This is nylon/plastic. They also use wooden produce boxes which are lightweight and can be placed one on top of the other for small quantities.

Wood is the best option for the frames, but metal can be used. However, care must be taken to ensure this doesn't get rusty.

The takeaway messages were that it doesn't have to be complicated or expensive to set up a drying room. 300 - 400 euros should be sufficient, assuming you have a building/room. Alexandre also suggested that if you don't have a building, a caravan would do (subject to food safety standards being met). It would need to be insulated and have access to power for a dehumidifier.

To get high quality dried herbs, Alexandre explained you need to use all your senses.

- Hearing herbs should crackle when crushed between the fingers, which shows they are dry.
- Sight herbs should look as they did when they went in fresh i.e. they should retain their colour and shape not go brown or black.
- Smell if they smell mouldy, they haven't dried properly or fast enough.
- Taste they should taste good!

Most drying takes 3-7 days at Terres de Tisanes. A herb like lemon verbena or nettle may take 3 days, whereas calendula or peppermint can take up to 7 days. There will remain some residual humidity in the plant material, and 12% is the accepted level by pharmaceutical laboratories.

Managing the harvest is key, so that the drying room is not taken up by one or two herbs for 7 days while others go over in the field. Some herbs are also much harder to dry than others, for example ash leaves require heat as the plant has a waxy layer on the leaf which naturally regulates heat and stops water from evaporating. Lemon balm, mint and basil go brown easily, so it is important not to touch them until they are completely dry.

It may seem obvious but drying removes a lot of humidity and also reduces the weight and volume! It takes many processes and a lot of work to create one bag of tea!

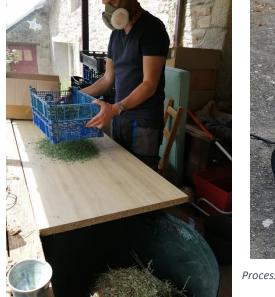
#### Post-drying processing

At Terres de Tisanes, all herbs are dried first before being reduced to smaller, uniform sized pieces. Alexandre uses a garden shredder for nettle, mint and lemon balm. Many other herbs are too delicate for this treatment, and must be broken up by hand, or they turn to dust. Rosemary is best put in a bag and beaten, so that the leaves fall to the bottom.

Once broken up, herbs can be sieved to achieve a uniform size. Alexandre uses mushroom boxes for this, which works well.

Herbs are then stored in paper sacks in the dark. Humidity must be controlled in the storage room to prevent them going mouldy. There is no agreed 'best before' date for dried herbs – some say they last for many years; some say 6 months.

Tea blending and packaging is now outsourced to a training centre for people with disabilities. They handle all the mixing of herbs as well as the bagging and labelling. Before outsourcing, Alexandre used to spend the morning in the field and the afternoon in the office. One of his biggest initial outlays was a weighing and packaging machine, which he no longer uses.





Processing dried herbs using mushroom trays and a garden shredder

#### Day 6 (July) – Organic Herb Trading Company and Harpford Herbs, South Somerset

I was lucky enough to visit two herb farms in close proximity in South Somerset in late July. This was a fantastic opportunity to see herb growing in the UK, share what I had seen in Brittany and see herb farms in the summer season.

#### The Organic Herb Trading Company.

I met with Sarah Weston, who has been the head grower at the Organic Herb Trading Company for 12 years. Sarah manages the 2-acre herb field, which is a small part of the business of importing and selling organic herbs from around the world. She works full-time and employs seasonal staff from April – September.



Left: view of the herb fields. Right: Calendula harvest.

Although a small part of the overall business, herbs are grown commercially and are sold to customers who want fresh and dried organic UK grown herbs. Some of the customers include distillers of gin, animal owners (herbal animal medicine) and herbalists. The Organic Herb Trading Company have also started to make tinctures and a few of their own herbal teas.

The crops are managed in permanent no-till beds, with hand tools. Much of the time is spent weeding – and Sarah has reluctantly started using plastic mypex to control weeds across the site.

Rotations are not really an issue, as many plants are perennials and stay in the ground for several years. Once a root crop is harvested an annual crop will be put into that bed the following year, and Sarah makes sure no annual crop grows in the same bed two years in a row. Generally, there have been few pest issues. Slugs were an issue in the past but were controlled with ducks. Aphids can still be a problem on some plants, and ants are also a problem.

Herbs must be dry when harvested. Most are then cut with an old chaff cutter, before being put into boxes to dry in a large dryer in an outhouse. This is a closed system, with heating and a fan at one end, and a pipe to take water lost from the plants out under the floor of the room. Boxes are cleaned between each herb dried. Record keeping is key to ensure full traceability of each harvest.

Root crops are cut with a garden shredder before being dried, and take much longer.

#### Harpford Herbs

Harpford Herbs<sup>20</sup> have a ¼ acre herb field set within a smallholding in South Somerset. They have been on the site for 6 years and produce teas and tinctures. Tryphena is a practicing herbalist, and some of the herbs grown on site are prescribed to her clients.

<sup>&</sup>lt;sup>20</sup> <u>https://harpfordherbs.co.uk/</u>

A wide range of herbs are grown on-site. These include ashwagandha, liquorice, schisandra, sweet cicely, viola, lemon balm, mugwort, mullein, wormwood, artichoke, St. John's wort, sweetcorn (silk), marshmallow, elecampane, betony, calamint, catmint, echinacea, vervein, sage, calendula, lavender, hyssop, Passiflora, lovage, and more.



These herbs are grown for their medicinal uses. Placard are displayed around the plot, which is open to the public. Tryphena explained to us in detail the uses of each herb.

They experience few pests issues and find that most herbs regenerate naturally through self-seeding or divisions. The self-seeded plants often seem to be the healthiest and are therefore favoured over sowing into modules. They are simply dug up and transplanted.

Harvesting is done using a few useful hand tools. A vegetable sickle has a sharp, serrated blade which cuts through plants easily. Camomile rakes are used for harvesting camomile flowers – they are only available to buy from Germany, and take a bit of getting used to apparently.



Left: harvesting sickle. Right: herb dryer.

Once harvested, herbs to be dried are transferred to the dryer, which is located in a polytunnel. To avoid ultraviolet light reaching the herbs, a frame is draped in black plastic over the shelves. A fan at one end increases airflow.

As well as field-grown herbs, wild harvesting is also done at certain times of year. The main herbs which are wild harvested are lime blossom, nettle, and meadowsweet.

The wider smallholding has been designed to feed into the herbal business. A new hedge and woodland have been created, which include trees which produce herbal products such as lime trees, guelder rose and elder.

Harpford Herbs and The Organic Herb Trading Company offered some useful sources of seeds and information in the UK:

- <u>https://www.poyntzfieldherbs.co.uk/</u> for seed and plants.
- <u>https://earthsongseeds.co.uk/</u> for seeds.

## 3 Next Steps

I now need to digest everything I've learnt over the last three months and start planning how to integrate this into Nevern Valley Veg/Llysiau Cwm Nyfer. This winter will be a time for market research, planning and sourcing seed and equipment.

I intend to start testing herb production and drying in 2023, before deciding which species to focus on and what products to develop.

## 4 Key Messages to the industry

- 1. We are currently importing most of our herbs, but there is a market for herbs, which is well developed in some parts of Europe.
- 2. Small-scale can be profitable most of the herb farms I visited were working on less than 3 hectares, most considerably less.
- 3. There needs to be more support for farmers, and especially new entrants. In Brittany there are many more food producers, who are better supported to access land, start-up and link to markets.
- 4. Collaboration is key and can help grow the industry for all.

### Further reading:

https://www.bioactualites.ch/marche-bio-reboume/marche-bio/plantes-aromatiques.html

http://www.biopaysdelaloire.fr/wp-content/uploads/2018/06/guide\_technique\_ppam2018-web.pdf