

Viticulture Test & Trial – Summary of one to one interviews held in summer 2020



Kent Downs AONB Unit

October 2020

Viticulture: Tests and Trials - One to one meetings

The 'Environmental Land Management' (ELM) Test and Trial for viticulture is centred on the protected landscapes of the Kent Downs, Surrey Hills and South Downs. It is examining possible interventions that can be delivered by vineyards and that will provide public good as defined by Defra.

Following the first round of workshops held in March 2020 with viticulturalists, land managers, farmers and vineyard owners, areas of sustainability and best practice were identified as a focus for the one-to-one interviews to be held in Milestone 2.

A number of vineyards were carefully chosen from those who participated in the initial workshops, with further vineyards which were deemed interesting for their focus on various aspects of best practice. The vineyards were evenly distributed across the protected landscapes of the Kent Downs AONB, the Surrey Hills AONB and the South Downs National Park. A selection of vineyards participated in one-to-ones virtually and a further group with on-site visits. Over 24 vineyards have been visited with eight one-to-one virtual interviews and six one-to-one interviews on vineyard sites. Many vineyards have sites in both Kent and Sussex, with both being visited and images taken of all the vineyards visited. Further visits were undertaken following the initial virtual interview when additional discussions took place.



South Downs Vineyard

Vineyards participating in the virtual one-to-ones were Brenley, Plumford, Rathfinny, Gorsley, Grange Estate, Albury, Nyetimber and FWAG. Vineyards visited were Brenley, Rathfinny, Chartham, Tadpole, Breaky Bottom, Upperton, Albury, Jessel Farms and High Clandon where one-to-ones took place and images were also taken at Nyetimber in Kent, Taittinger, Plumford, Denbies, Westwell, Biddenden and various Thurnham and Boxley vineyards.

The one-to-one questions were focused on the six areas of Defra's, Public Goods. This included finding out about their general participation in the present support schemes and sustainable bodies promoting best practice.

General Participation

Eleven out of thirteen asked were receiving payments through the Basic Payments Scheme, the other two were too small in area. Of those eleven, seven had some of their surrounding land in Higher Level Stewardship or Countryside Stewardship and one was participating in organic stewardship. It was felt that the Countryside Stewardship scheme was too complex with a total of 900 pages in the handbook and too much paperwork. Thought needs to be put into the ELM scheme otherwise it could just become a tick box exercise with no heart in it. Food is a public good therefore sufficient recompense is needed, the bench line of what is being paid at the moment should be the minimum.

WineGB was the most popular form of sustainability marque with seven vineyards participating, two were part of LEAF and the other had either applied or were thinking about it. Two thought it

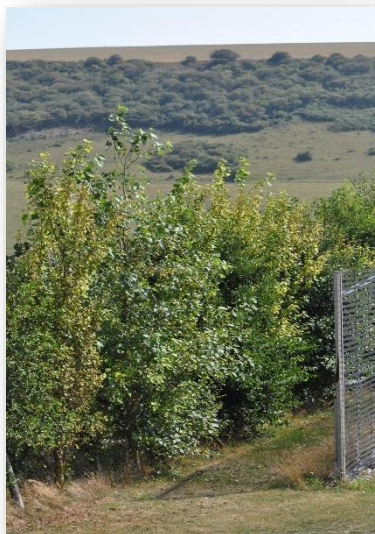
was too expensive to join another body and one felt it was not offering sufficient value for money despite having sat on the sustainability committee.

Most asked said they would participate in the new ELM but the funding was fairly critical and akin to the funding of the present scheme with exponential increments. However, FWAG felt that BPS and Countryside Stewardship didn't provide enough income. A reduction in paperwork should also be considered. Many stated that a one stop place for advice and guidance would be very welcome. Others felt that there should be bolt on interventions and over a longer period of time rather than the normal five years.

Clean and plentiful water

Many vineyards would like to collect rainwater from their roofs. Some do, and some have boreholes, while others recycle water when spraying. However, this equipment is expensive and can only be afforded by the large hectare vineyards. All the vineyards have sward between the rows of vines though continual travelling up and down the rows causes compaction and this needs to be addressed. Few vineyards have either reed beds, biobeds or biobubbles. Financial considerations play a part in these decisions as they are very expensive.

Clean air



Mixed species Windbreak

Most quoted their vineyard as being carbon neutral and were using double linkage on their tractors. Some mentioned the use of electric tractors or robotics working at night to reduce the carbon emissions. One vineyard would like to install PVs and plant trees.

All the vineyards have windbreaks. Most are using Italian alder; some have included English alder (*alnus glutinosa*) some have gone further with plantings of field maple and hawthorn amongst the alder. However, to protect the vineyards and the newly planted windbreaks, one vineyard installed paraweb, a black plastic initially, to reduce the wind speed. Some vineyards have mixed hedges round their vineyards, but one has planted oak amongst the alder on pure chalk. Beech would have been better. In West Sussex, the alder beetle is present so they have planted English broad leaf species.

Soil

Some vineyards do not use fertiliser in the vineyard, some drill fertiliser into the soil, some use chicken pellets and some use animals such as alpacas or sheep for grazing the vineyard and in turn adding natural fertiliser. Some state that it would be too expensive to fence the vineyard and don't have sheep. It would be possible to rent a flock, or a local farmer would usually be keen to put some sheep in a vineyard during the winter. Others have their vineyards fenced with deer fencing as a deterrent for the local deer.

Many vineyards trim below the vines rather than disturbing the soil. However, this gives little thought to hedgehogs which may use this area in the vineyard for cover. Some of the vineyards cultivate close to the vines and other use glyphosate at the beginning of the season. Many of the vineyards have let the natural seed bed regenerate rather than planting grass or a wildflower meadow. Some have planted a herb rich wildflower meadow. One vineyard participated in a trial with the University of Sussex, which received good data on creating a meadow for managing the soil in the vineyard, but the sward was too long and created levels of humidity that are too high. The sward needed to be low growing/prostrate, and this would also eliminate the need for mowing.

Vineyards generally look tidy, and this can become the trend amongst vineyard owners who may look 'over the hedge' at their neighbours and feel that a tidy vineyard represents best practice. It was felt that the vineyards should reduce the amount of soil disturbance - which at the moment is therefore losing H₂O.

Mitigation of and adaption to climate change

Many passes through vineyards with tractors could be amalgamated. Two of the small vineyard owners undertake most of the work by hand.

The severe frost we had this year hit almost all the vineyards and two of those interviewed were

hit for the first time ever. One lost 75% of the crop. Seven out of the vineyards are using frost protection in the form of bougies and the larger vineyards are using infield weather sensors as a warning. One vineyard used tractor mounted heaters (see below), originally destined for orchard fruit, with 100% success and no



Bougies lit at night to raise the temperature for frost protection

loss to the severe frost

All of the vineyards have sward in between the rows. One vineyard has red clover in every other row in one of their vineyards and another one they have a mixture of wildflower plantings including herbs and chicory. Following the initial use of glyphosate under the vines various species of wildflower seed and by the late summer the cultivation of bare soil cannot be seen.

Many of the vineyards are using biological control such as lacewings and ladybirds with pheromone traps to indicate the levels of infestation. Very little insecticide is used.



Frost protection equipment

Protection from and mitigation of environmental hazards

Most of the vineyard managers/land managers are very aware of the impact of environmental hazards and are reducing their spray programmes to as little as possible. Most are using some form of biological control and most only use fungicides when necessary. Some of the vineyards are organic and 50% of them trim under vines to reduce the glyphosate used, A number of vineyards also cultivate under the vines such as the organic vineyards and as iron is injected in to the soil this also leaves a cultivated area close to the vines.

Many of the farmers are using organic chicken pellets and also graze both sheep and llamas in the winter. A number are trying different organic and biodynamic methods to replace the use of pesticides and non-organic fertilisers. All but one would be prepared to do an environmental impact assessment. One company thought that a more comprehensive assessment should be undertaken, particularly by an agronomist. Justification for passes and alternatives should be required.

Thriving plants and wildlife

The majority of vineyards have self-sown or regenerated sward. Some have added herb mixes and wildflowers to the sward as well. In one vineyard they have sown red clover every other row and, in another vineyard, each row is sown with wildflowers to include chicory, which is good for grazing sheep. Some of the vineyards have dedicated wildflower meadows which are open to the public for them to come and visit. Another vineyard has a species rich meadow sward of which the seeds are used to feed the turtle doves. Many vineyards thought it was acceptable to be paid for the sowing of a wildflower meadow if need be. Two vineyards had planted phacelia one in a meadow next to the vineyard and the other in the first year of planting.

Some vineyards record the wildlife seen on the farm. Those in Higher Level Stewardship often have it recorded by a person from Natural England or record it because they are LEAF Marque certified. Seven vineyards record the wildlife through interested bodies such as the RSPB, Butterfly Conservation, and colleges. Most people would be prepared to undertake a landscape habitat survey and mapping of their farm. And again, most people would be prepared to collaborate with their local community where there is a specialist to ask for help with delivering and surveying their vineyard with the general public present, providing learning opportunities. However, this collaboration must be financially viable. One vineyard is partnered with Plumpton and they have 3 - 4 student work placements. They work with Butterfly Conservation entomologists surveying lepidoptera since they have two SSSIs. They also have lots of volunteers for surveying.



Clover ley in the rows

Some vineyards have owl boxes and bat boxes and others are addressing this. The vineyards have numerous raptor perches and some bird boxes. It was felt that vineyards are becoming better at making provision for wildlife, but they could be a lot better. They need to consider the landscape view rather than an ad hoc attitude to wildlife friendly features. Corridors for wildlife are minimal since many of the vineyards have deer fencing with rabbit/badger fencing at the base. Badgers are often seen as a threat as they eat the fruit and break down the vines. The other threat are



Windbreaks in a vineyard in the Kent Downs

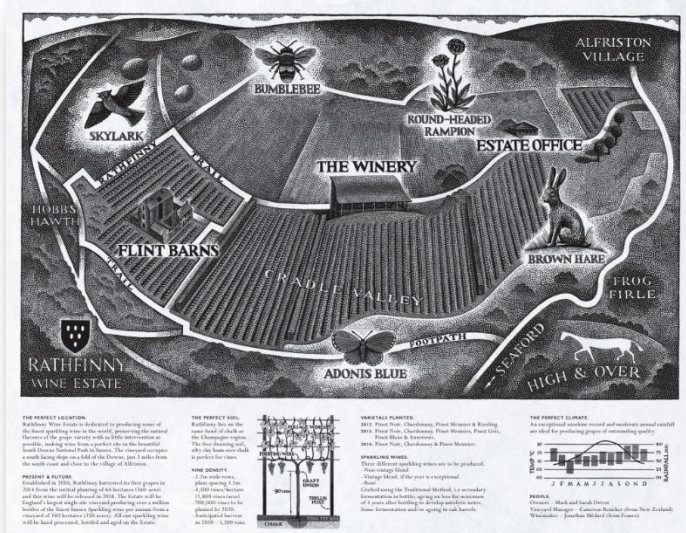
pheasants since they eat the fruit. In Kent the vineyard managers are having to address the threat of spotted winged drosophila as well as vineyards in parts of Sussex. Most of the time they are removing the host plant, *Rubus* (bramble).

Most of the smaller vineyards have mixed hedges round the vineyards with some having hedgerows through the vineyard too. Some of the bigger vineyards also have a mix of varieties of windbreak such as English maple, hawthorn, English alder and Italian alder.

Beauty, heritage and engagement

Most of the people would be prepared to open their vineyard to the general public and many do already but it needs to be in a controlled way. Some have permissive paths which take in the vineyard, but others are too small. Many stated health and safety as an issue and felt that if it

were a guided tour, that would be more agreeable. Some of the vineyards already had dedicated trails with interpretation boards and some were looking to install more for the general public as they saw it as a great benefit. Others would like signage/interpretation panels for the vineyards where they have footpaths and self-guided tours.



Interpretation

All the vineyards would participate in collaborative educational walks and most would open for an Open Vineyard Sunday event collaborating with the neighbouring cluster vineyards on a rotational basis. The local community would also be welcome to participate with surveying/guided educational walks etc. However, people are nervous of this but it is on the increase. Health and Safety is always an issue as is transport for schools to the sites unless they are close by to an education establishment.

Most of the vineyards were asked whether they had thought about working with the protected landscape to facilitate making a greener and more beautiful, sustainable landscape. Those

vineyards in the Surrey Hills were already working with the AONB. Many in the South Downs were also working with the rangers from the South Downs National Park, but only two of the vineyards in the Kent Downs were working with the AONB. Many people are unaware of the policies of their protected landscape's management plan. They need to be made aware of them by reading the relevant chapter and understand why it is there! There is an opportunity to present the vineyards with a copy or provide workshops on landscape character and vineyards.

However, many have thought about the impact the vineyard may have on the landscape, but also, they had to consider the practicalities of the materials they were using. One vineyard was using wooden posts at the ends of the rows where the general public would have a view of the vineyard. Another vineyard was planted with dark green powder coated post because the neighbouring house owner was very insistent. Most said that wood rotted far too quickly and only had a life span of 15 years against the quoted 30 years and were not easy to replace. Some vineyards are using brown powder coated metal posts, supposedly emulating wood but they do not mellow with age. One company felt that all posts should be moss green in colour.

Two vineyards in the South Downs were sited on the crest of the downs where a tree line was



Vineyard on the crest of the Downs

non-existent and the landscape before the vineyard would have been arable or grass and this was creating a new and unaccustomed vista.

Many of the vineyards are using drones to determine the health of their vineyards so that disease or viruses can be identified early and stopped from spreading, limiting the need for overall spraying. One farm is working with East Malling Research Station on a drone research project in orchards which could also be used in vineyards. Many would like to have the use of robotics when they become available but the costing of using such equipment would be very restrictive to the smaller vineyards unless they could have one and share in a cluster. Funding is the issue!

Other thoughts

Social media has a huge following. Instagram creates a lot of interest and could be used to create a virtual tour of the vineyard through the seasons as an educational tool.

It is important to work with other educational institutions to deliver various forms of research which will add to making the vineyard more sustainable.

The ELM needs to be flexible with interventions which can be added to through the lifetime of the agreement and have a life of more than just 5 or ten years as has been the case before. One company feels that 30 years would be more feasible.



Vineyards of the Surrey Hills AONB

Often the market and technology overtake the scheme. This needs to be addressed and further interventions could be bolted on as technology progresses.

Row crops, orchard, cane fruit and bush fruit should be funded as a total package not just vineyards.

One vineyard is undertaking a re-wilding project at the home estate on 80 acres. The land was once arable, and they felt it is a social responsibility to establish this project for wildlife sustainability. This vineyard had the financial independence to undertake this project. For further vineyards to establish an area of re-wilding it would need to be funded under the ELM.

Many suggested that they needed a dedicated body which can deliver advice funded by the ELM and maybe demonstration farms to support both established and new vineyard owners/managers. This advice would also give much needed direction and simple advice on how to achieve these interventions. Advice and help is essential with guidance notes for all areas of best practice.

The scheme requires the farmer to be funded to do it. The incentive to participate in the ELM would not happen unless there is funding. One person felt that public money should not be rewarded by public access, the public would take it as open access.

One felt that the general public would question what was being said on the interpretation panels, having had recent experience of this. However, they have also had trouble with off roaders riding up and down through the vines as did another with off roaders and horse riders and people just wandering wherever they wanted. Dog walkers also left excrement in the vineyard.