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Kent Downs Sustainable Viticulture

A scoping study produced by the Kent
Downs National Landscape Team

Published March 2026

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This report has been produced by the [Kent Downs National Landscape](#) with the assistance of [White Horse Ecology](#) and is supported by Defra's Funding in Protected Landscapes programme. We would like to extend our thanks to all those who contributed their time freely to the creation of this report.

Document prepared by:

Mike Phillips MCIEEM

03/03/2026

Approved by:

Nick Johannsen FLI

12/03/2026



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**Farming in Protected
Landscapes programme**



White Horse Ecology

Executive summary

Viticulture has expanded rapidly in the Kent Downs National Landscape over the last 20 years. At the time of writing, approximately 20% of the UK's vineyards by area can be found in the Kent Downs. This exponential growth in the area of vineyards and the new entrants into land management in the Kent Downs represent both opportunities to enhance and conserve the landscape as well as some associated threats.

This scoping project has engaged vineyards, viticultural consultants, guidance and certification organisations, academics, nature conservation groups and local authorities to help understand:

- What sustainable viticulture in the Kent Downs might look like
- What the appetite for involvement in sustainable viticulture projects is
- What the current barriers to sustainable viticulture are
- What the priorities for future work might be

To help answer these questions a series of workshops were held as well as one to one interviews with key players in the industry. This was followed up with a questionnaire to all the stakeholders who had been involved in the project.

The broad priorities for future Kent Downs sustainable viticulture work identified by the project which were:

- Reduction in use of pesticides
- Increasing biodiversity both within and around vineyard blocks
- Healthy soils and carbon sequestration
- More effective use of water and cleaner water courses and aquifers
- Enhancement and conservation of landscape character
- Boosts to rural economy and employment
- Focus on projects that do not replicate work being done elsewhere and that relate to enhancements in the Kent Downs

The following projects have been identified as potential priorities based on the evidence gathered by this work:

Proposed Kent Downs Sustainable Viticulture phase 2 projects

Vineyard Health	Managing vineyard blocks to maximise biodiversity, soil health, grape yield and numbers of predator species
Vineyard Connectivity	With a focus on a vineyard's role in the wider landscape and how it can contribute no wider nature connectivity
Vineyard Clusters	Clusters of vineyards that share resources, machinery, best practice and receive support to access available funding

Sustainable Viticulture Growth	Provide improved clarity for local planning authorities and for vineyards
Sustainable Viticulture Tourism	Tell the story of sustainable viticulture through publicity, vineyard tours and branding
Sustainable Viticulture Research	Understand research priorities, support those that are relevant to the Kent Downs and collect evidence to verify research findings



1 Background and introduction

The growth of viticulture

Viticulture has been developing rapidly in England over the last decade, and the Kent Downs National Landscape is at the forefront of the growth in vineyards. This creates both challenges and opportunities for protected landscapes. Over the last 15 years, the area under vines in the United Kingdom has increased by more than 350 percent, with over 1100 vineyards covering approximately 4800 hectares¹.

Figures derived from multiple datasets including English Wine's Vineyard Database² by the Kent Downs National Landscape suggest that nearly 1000 hectares of the area under vines is in the Kent Downs (see figure 2). As this amounts to over 20% of all land under vines in England, the impact of viticulture on the Kent Downs is disproportionately higher than anywhere else in the country. Put another way, 20% of England's vineyards are found within 0.67% of the country.

Although the area of the Kent Downs covered by vineyards is currently only around 1.5%, of the Protected Landscape they are often found on or around the scarp slope and valley sides, making them highly visible with direct sight lines from large areas of the vales beneath. The potential for future growth in vineyards continues to be large, and the impact of vineyards on Protected

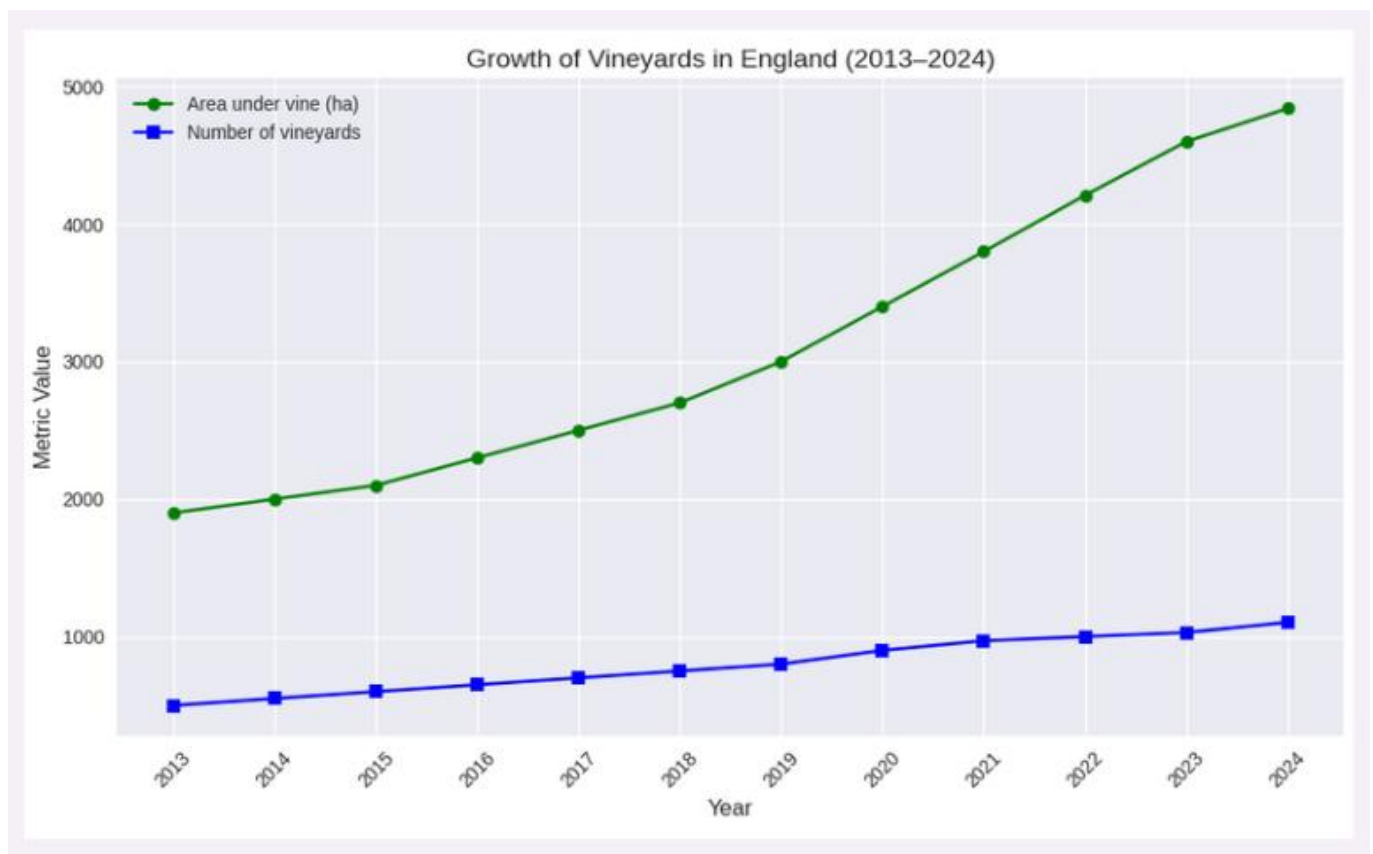


Figure 1: Growth in area and number of vineyards in England (Source, Kent Downs data derived from multiple sources including Wine GB, 2025)

¹ Source (Wine GB Industry Report, June 2025 - <https://winegb.co.uk/wp-content/uploads/WineGB-2025-Industry-Report.pdf>)

² English Wine Vineyard Database - <https://englishwine.com/vineyard-database/>

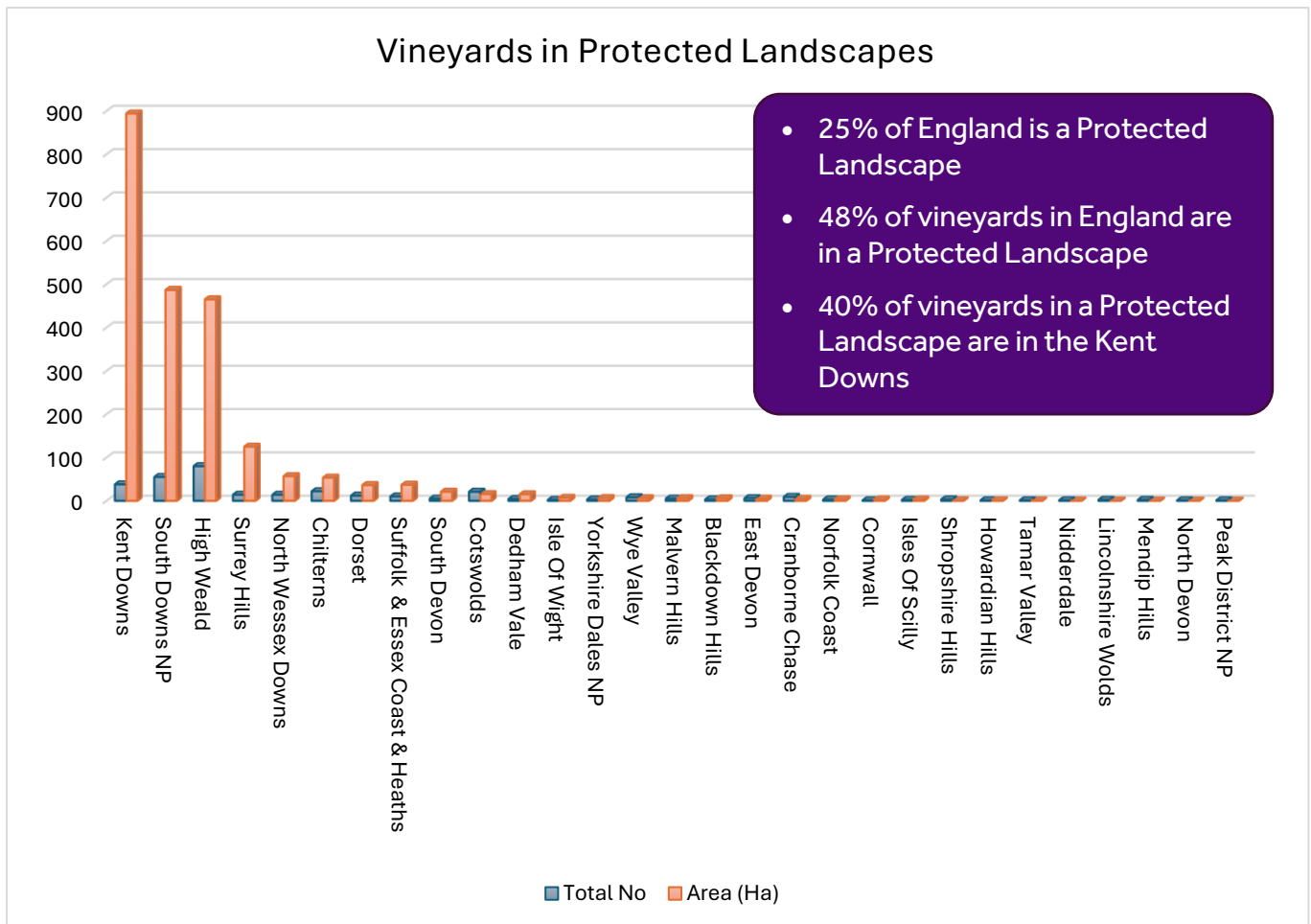


Figure 2: Hectareage of vineyards in protected landscapes 2024 (Source, Kent Downs data derived from multiple sources including English Wine Vineyard Database)

Landscapes in general and the Kent Downs National Landscape in particular, is likely to increase. Data from Wine GB (2025) suggest that vineyard area increased by 7% and 9% in 2024 and 2025. Consequently, it is timely to consider how viticulture changes the character of landscapes and how a National Landscape organisation can support a sustainable approach. By developing best practice guidelines and supporting vineyards to be more sustainable, Kent Downs vineyards might set the standard for vineyards across the UK.

The impact of viticulture

Vineyards are becoming more obvious in the landscape. They have a visual impact, though modern top fruit methods and the extensive use of wires means that there is a visual similarity between orchards and vineyards. As such, the visual impact of vines may not be as substantive a change as areas where there isn't currently a large presence of apples, pears and cherries.

With change comes opportunity. Viticulture represents a successful example of land use diversification and rural enterprise. This also represents a change in some of the landowners that are managing land in the Kent Downs. Although some vineyards are a diversification of land use by existing farms, there are also a large number of landowners that are new to the Kent Downs, from large international wine houses to small landowners who may be growing less than a hectare of vines. These new landowners can often have different attitudes towards land management, driven

by multiple factors including their previous background and their attitude towards marketing a product that is very much linked to its 'terroir'.

Vineyards typically have alleys between rows and often extensive headlands. This can mean that as little as 15-20% of a vineyard is cultivated, leaving opportunities to provide enhancements to both landscape character and a range of other ecosystem services in the remaining area.

In 2020 and 2021, the Kent Downs National Landscape Team carried out a Defra funded [Test and Trial into viticulture](#). This specifically looked at the possibility of using agri-environment payments to support viticulture to adopt a range of measures including soil health, biodiversity features and public access. Although not adopted wholesale in Sustainability Farming Incentives and Countryside Stewardship, permanent crops such as top fruit and vineyards are now eligible for payments from Defra.

Encouragingly, research carried out during the Test and Trial suggested that over 90% of vineyard managers would consider agri-environment incentives to make viticulture more sustainable. The industry has shown that it is positive about how it can work towards best practice, this was echoed in this scoping study.

The purpose of this report

This report is a scoping study designed to understand the best ways that the viticulture industry can be supported to become more sustainable. An effort was made to address issues with a local emphasis and not to solely discuss generic sustainability issues in viticulture. These included materials used for fenceposts, the specific, vernacular wildflower seed mixes that might be used and how the growth of viticulture might be managed by strategic authorities. The aim was to identify recommendations that enhance and conserve the unique character of the Kent Downs.

Vineyards, the wine industry, environmental organisations, academics and other stakeholders have all contributed to this report to develop a set of recommendations for future work. The Kent Downs National Landscape is grateful for the contributions made by all of those that gave their time freely in workshops and interviews as well as those that filled in questionnaires. These efforts help to ensure that the recommendations made in this report reflect as wide a range of views as possible.

The next steps are to use the recommendations to create and fund effective and well-supported projects to help deliver sustainable viticulture in the Kent Downs and across the UK.

2 Method

The purpose of this scoping project is to gather evidence and as many opinions as possible to inform future work to improve the sustainability of viticulture within the Kent Downs. To do this, we talked to vineyard owners and managers, viticulture consultants, wineries, certification schemes, environmental organisations, local planning authorities and other stakeholders. We used a combination of workshops, one-to-one interviews and questionnaires to gather this information.

2.1 Workshops

Five workshops took place across January and February 2026. Viticulturists, agronomists and consultants in the viticulture sector were invited to three of the workshops whilst environmental groups, local authorities and other key stakeholders were invited to the other two workshops. Each group was offered the option of attending an in person or online workshop. The workshops all followed a similar format using presentations, all group discussions and breakout rooms to answer three key questions:

1. What good practice in sustainable viticulture is already in place in the Kent Downs
2. What are the priorities for developing further good practice
3. What support is needed to achieve more sustainable viticulture within the Kent Downs and other protected landscapes

These questions were used to develop a set of recommendations. During face-to-face meetings, participants were given the chance to prioritise the recommendations the group had come up with simply by adding a vote to the recommendations they felt were the most important. A list of attendees can be found in [appendix I](#).

Terlingham Vineyard



2.2 One-to-one interviews

Eleven one-to-one interviews took place between December 2025 and February 2026. These semi-structured interviews allowed in depth conversations to take place with specialists in a variety of fields. These included certification schemes, academics, vineyard owners, and nature conservation specialists, all with a unique take on viticulture in general and within the Kent Downs specifically. Interviews generally lasted between an hour and 90 minutes and although each interview was tailored to the skills and experience of the specialist, all interviewees were asked what was needed within the viticulture sector and what support the sector needed.

All interviews were held online apart from David Thring at Elvis and Kresse which consisted of a site visit. Summaries of the interviews can be found in [appendix II](#).

List of interviews

Name	Organisation	Date
Sam Trevey	Red Tractor	17/12/2025
Sarah Vaughan Roberts	Nature Friendly Farming Network	15/01/2026
Emma Rix	Wine GB	23/01/2026
Anne Jones		
Victoria Prior	Linking Environment and Farming	27/01/2026
Abby Holman	(LEAF)	
Dan Stevenson		
Natalia Zielonka	Durrell Institute for Conservation and Ecology	27/01/2026
Alice Parfitt	Buglife	29/01/2026
Sarah Arnold	National Institute for Agricultural Botany	03/02/2026
Belinda Kemp		
Becky Sykes	Regenerative Viticulture Foundation	18/02/2026
Nicky Gammans	Bumblebee Conservation Trust	27/02/2026
Duncan Westbury	Royal Agricultural University	20/02/2026
David Tring	Elvis and Kresse	27/02/2026
Will Moreno	Silverhand Estate	04/03/2026

2.3 Questionnaire

Following the workshops and most of the interviews, a questionnaire was sent to all the people who had taken part or were interested in the Kent Downs Sustainable Viticulture project. People were also asked to circulate the questionnaire to others who worked in or near the Kent Downs. The focus of the questionnaire was to understand the role of the person filling in the questionnaire and what they thought the priorities for future projects were.

No personal information was collected which made it easier to analyse and share data without the worry of breaches of General Data Protection Regulations. Additional questions asked if the respondent was either a vineyard owner/manager, an academic or involved in planning. The form was designed using Google Forms and can be found in [appendix III](#).

3 Results

A wide range of people attended workshops and interviews. This gives us confidence that as many opinions and viewpoints as possible were explored. The themes that were brought up most frequently include:

- Guidance and advice
- Biodiversity features in vineyards
- Regenerative practices
- Certification and accreditation
- Future research priorities
- Branding and marketing
- Planning issues around associated viticulture and winery infrastructure

3.1 Workshops

Five workshops took place, attracting 54 people. Although largely the same issues were brought up in all the workshops, the approach to each of the subject areas was sometimes noticeably different. This was largely dependent upon whether the group consisted of viticulturists, wildlife organisations, local planning authorities or other stakeholders.

The final session of each of the workshops asked people to identify the projects they would most like to see being taken forward in the Kent Downs and the face-to-face groups prioritised these proposed initiatives. The most popular issues discussed included.

- Viticulture farm clusters
- Kent Downs planning guidance
- Sustainable viticulture advisor (site visit focussed)
- Guidance for best practice in Kent Downs sustainable viticulture
- Support to adopt technological advances
- Support to integrate biodiversity features
- Design stage guidance for vineyards
- More interdisciplinary research
- Research benefits of 'land sharing' - including nature features within the vineyard
- Understand water use and impact
- Interpretation promoting sustainable practices
- Creating buffers around vineyards for biodiversity and pesticide drift control
- Focus on nature recovery rather than specific features for biodiversity (like bird and bat boxes)
- Spatial development strategy for a landscape with vineyards

A summary of the points raised in the workshops can be found in [appendix I](#).

3.2 One-to-one interviews

Interviews could be broadly categorised into the following categories:

- Vineyards
- Certification and accreditation
- Vineyard support
- Research organisations
- Wildlife organisations

The in-depth interviews allowed a better understanding of the work of the organisations to be gained in a way that workshops would not allow. It also helped to facilitate conversations about future priorities and how they might be able to contribute to any future Kent Downs Sustainable Viticulture projects in the future. Importantly, understanding the breadth and depth of existing support for vineyards helps to ensure that future work does not attempt to replicate what is already on offer.

More detailed notes from the interviews can be found in [appendix II](#).

3.3 Questionnaire

44 questionnaires were filled in between 13th February 2026 and 1st March 2026. They were filled in by:

14	Vineyard owner or manager
12	Nature conservationist
6	Local authority
4	Academic
3	Viticultural consultant
5	Others

Proposals

Most of the initiatives put forward in interviews and at workshops proved to be popular, with some notable exceptions, although the comments section suggested that those that received low scores were either lacking in popularity or relevance rather than there being opposition to the proposal. The most popular proposals within the questionnaire were (number who chose in brackets):

Proposal
Work with Defra to refine the agri-environment offer for viticulture (37)
Develop best practice guidance and training for Kent Downs vineyards that includes ways to reduce impacts of pest species (33)
Creating biodiversity buffers around vineyards connecting to other high quality habitats (32)
Support communication between land managers, regulators, environmentalists and other stakeholders (31)
Kent Downs planning guidance for viticulture and associated infrastructure (29)
Link initiatives to Kent's Local Nature Recovery Strategy (29)

Develop a wildflower seed mix or mixes for Kent Down vineyards (between vines and other areas) (29)
Support access to grant funding (27)
Help vineyards collect consistent data relating to biodiversity initiatives (27)
Help the public understand how viticulture can conserve and enhance landscape character (27)
Market Kent Downs wines using examples of best practice in sustainable viticulture (27)
Provide grants for innovative machinery and techniques (27)
Spatial development strategy for a landscape with vineyards (in light of current exponential growth) (27)

Involvement

One of the questions that was asked was how respondents wanted to be involved in future initiatives. The results for this question were as follows:

31	Initiatives for biodiversity
30	Guidance and advice
20	Research
16	Involving people
13	Machinery and technology (particularly popular with vineyards)
11	Branding and marketing

More in depth analysis of this data shows that low scoring options aren't necessarily a reflection of lack of popularity. For example, branding and marketing was a very popular option amongst vineyards, but probably not that relevant to nature conservation organisations and some of the other respondents.

Comments

A wide range of comments were received, most of which were positive about sustainable viticulture initiatives. All the comments can be found in appendix III but some of the ones of most relevance include:

Comment

On the whole, I tried to choose options where I think they're not already being provided elsewhere.

There's no point reinventing the wheel and there's a lot of advice already out there for vineyards through academic institutions (Plumpton, NIAB etc), industry bodies (Wine GB) and consultants/agronomists. So, if we want advice on the more generic aspects of vineyard management (e.g. soil health), we already have places we can go. If Kent Downs is going to invest resources, it should focus on areas that are specific to this region, enhancing what makes this area special and bringing opportunities to the region (e.g. sustainable tourism, which could bring together accommodation and other hospitality options too).

There were also quite a few points about developing Kent Downs seed mixes. I'd have thought even if you seed these mixes, they will eventually naturalise to whatever mix suits the soil and area of the vineyard? Certainly, we have too much fertility to support a native mix that would be found higher up the escarpment, even from the same village. We'd have to scrape topsoil or at least start with measures to weaken the grass sward before seeding - meantime we're introducing more fertility whenever we feed the vines.

Some of the options to increase biodiversity within vineyards should not be adopted until we can be clear that vineyards are not a sink for biodiversity (or in what circumstances this applies) - the last thing we

want to do is attract species that are then killed by chemicals and intense farming techniques - the evidence needs to be there to ensure that biodiversity can be maintained and supported in vineyard environments, or we could be making a bad situation even worse. LOVE the ideas around branding and marketing.

Please avoid deliberate planting of seed mixes. I realise that this is well-intentioned, but natural regeneration of disturbed-ground and permanent grassland habitats is likely to be more beneficial for biodiversity. At most, local green hay should be used. Also, the Local Nature Recovery Strategy should be used as the primary guide for local action.

Full results can be found in [appendix III](#).



4 Discussion and recommendations

Interviews and workshops identified a group of recommendations and possible future projects that could broadly be split into distinct themes. The exceptions to this are the advice and guidance and research themes that cut across all the other recommendations. This section will look at each of the themes in turn and summarise the ideas, relevance to the Kent Downs landscape, levels of support as well as some of the key issues that have been raised. Recommended possible projects to develop for the next phase of the Kent Downs Sustainable Viticulture programme can be found in [Next Steps \(section 4.9\)](#).

4.1 Biodiversity and landscape

Overview

The potential for vineyards to be a positive influence on biodiversity and landscape, coupled with a sector that is genuinely engaged with being involved in nature recovery, make this an exciting space to work in. However, the high levels of chemical input within vineyards, backed up by some academic research, suggests that some of the efforts for biodiversity should be focused around and between vineyards rather than within the blocks themselves. There is still scope to develop regenerative practices and experiment with no till methods, longer sward lengths and higher vine trellises and integrated pest management programmes that can reduce the need for spraying. Bespoke vernacular wildflower seed applications received a mixed reception with some very enthusiastic but others sceptical about their value. Growers and nature conservation organisations were both keen to see agri environment schemes refined to be more suited to row fruit, especially where this could be linked to Local Nature Recovery Strategy priorities.

Key recommendations	Summary	Relevance to Kent Downs	Level of support
Creating biodiversity buffers around vineyards connecting to other high-quality habitats	The high value of grapes and the levels of pesticides used within the vineyard blocks can make biodiversity enhancements around vineyards a more effective method of supporting biodiversity without impacting production.	Vineyards are often sited adjacent to areas of high biodiversity value. Buffers can reduce spray drift and increase resilience of habitats by creating connections between high biodiversity areas.	High level of support from all involved and second most popular option in the questionnaire
Work with Defra to refine Countryside Stewardship and Sustainable Finance Incentive for vineyards	Agri environment incentives are not often used within vineyards. This is thought to be because the criteria for payments are not compatible with viticulture practices. Tweaking criteria	Relevant across all areas but initiatives that promote actions that are complementary to the surrounding landscape character could specifically benefit the Kent Downs.	Most popular option in the questionnaire. Difficult to effect change in national policy, but there may be ways to help vineyards adopt options successfully

	and promoting other vineyard friendly options may help.		
Native species wind breaks, hedges and trees	Higher biodiversity value of native species wind breaks and hedges is well established. Research shows buffer zones around hedges can limit impact of birds on crop.	Important impact on landscape character of non-native species, particularly those with morphology not typical to Kent Downs hedgerows.	There is a need to avoid certain species due to fruit attracting Spotted Winged Drosophila and other pests. However, this view is not universally held. A popular option in the questionnaire.
Develop a wildflower seed mix or mixes for Kent Downs vineyards (between vines and for other areas)	Driven by a desire primarily to maximise the biodiversity value of the inter-vine areas of a vineyard. A seed mix that has native species but is compatible with viticultural practices (e.g. does not increase humidity or encourage pest species) could increase biodiversity.	Potentially very high if done well as can help vineyards support vernacular flora and fauna. If done badly, could introduce species not native to the Kent Downs.	A strong steer from some to avoid this recommendation due to the risk of creating a 'biodiversity sink' (an area where wildlife is attracted to and then sprayed with pesticides). Also, this may have a limited impact as species mix can revert quickly. Inter-vine management may be more important. However, support is strong within workshops and questionnaires as well as some academics.
Link initiatives to Kent's Local Nature Recovery Strategy	A well-researched strategy to support nature recovery in the county with mapping to support and promote initiatives appropriate to a locality.	Initiatives designed to support the character and biodiversity of the locality.	A very popular option within the questionnaire
Soil regeneration practices (permanent cover, grazing, applications etc.)	Good management practices that improve soil health, reduce erosion and slow run-off. If done well can enhance biodiversity, increase carbon sequestration and improve grape yields.	Relevant in all locations. Good practice and benefits in all locations.	Strong interest based on questionnaire results.
Focus on nature recovery rather than features such as bird boxes and bat boxes	A feature of workshops and other discussions was that installing biodiversity features was less important than managing landscape scale nature recovery.	Initiatives such as these can focus on local character whilst supporting biodiversity.	Installation of biodiversity features was not particularly popular in the questionnaire. However, some features were promoted, particularly in interviews such as beetle banks, creation of bare ground for solitary bees and wasps, etc..

4.2 People, tourism and branding

Overview

The high price point of English wine and the importance of provenance, land stewardship and best practice in marketing a premium product make initiatives that help the public understand the importance of sustainable practices to growers. Establishing a link between best practice in sustainable viticulture and customer expectation can drive adoption of sustainable initiatives within the sector. Many of the recommendations within this section have been supported by vineyards. It is important that any marketing initiative supported by the Kent Downs is backed up by a measurable link to sustainable practices to avoid accusations of greenwashing.

Key recommendations	Summary	Relevance to Kent Downs	Level of support
Help the public better understand how viticulture can conserve and enhance landscape character	By spreading the word about best practice and how it is being applied, the sector can help alleviate public concerns over viticulture practices.	Initiatives within the protected landscape can help public understand what the sector is doing to support the landscape.	Very popular within the questionnaire and mentioned regularly in workshops
Market Kent Downs wines using examples of best practice in sustainable viticulture	Create a more direct link between best practice in sustainable viticulture, landscape and the qualities that can be associated with wines from the Kent Downs.	Highly relevant to the perception of wine making in the Kent Downs.	The most popular option in the branding and marketing section of the questionnaire
Use development of Protected Designation of Origin (PDO) to raise sustainable standards and brand recognition in Kent Downs viticulture	As Defra is the competent authority for PDOs, it has a duty to further the purpose of the Kent Downs in its decision making. A PDO that is based on the location of the Kent Downs could potentially link landscape and wine production.	Highly relevant to the Kent Downs. As the protected landscape with the highest hectareage of vineyard, a PDO could be highly significant to English wine production.	Complex and dependent upon support within the wine industry to pursue PDO status in the Kent Downs. However, some key players very interested in the development of PDO.
Link the sustainable tourism offer to sustainable practices in vineyards	Wine tours and visits are an important part of the commercial viability of wines in the Kent Downs. The story of the 'terror' and the custodianship of the landscape can make a compelling case from a commercial perspective.	When linked with use of public transport and local accommodation, it is highly compatible with other Kent Downs sustainable tourism initiatives.	Another popular option and received support in comments and at workshops

A sustainable viticulture farming award	Highlighting and celebrating the highest standards of sustainable viticulture.	Highly relevant if the award is linked to place. For example, a Kent Downs sustainable viticulture award.	Popular in the questionnaire.
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4.3 Planning

Overview

Planning is one of the areas where the different groups represented at workshops may have had somewhat divergent opinions. Issues discussed included development associated with wine production and accommodating visitors as well as the additional traffic this brings to roads in possibly tranquil areas with small roads. Equally, the employment possibilities that vineyards and their associated infrastructure can bring to rural communities is highly valued. Vineyard owners, understandably, wanted clarity around how their businesses could be grown, whilst other stakeholders were keen to manage the possible impact of viticulture at a landscape scale.

Key recommendations	Summary	Relevance to Kent Downs	Level of support
Spatial development strategy for a landscape with vineyards (in the light of current exponential growth)	An idea put forward by a local authority as a means of planning for additional growth in viticulture and top fruit including the impact it might have on water consumption, habitat degradation and water quality.	Relevant due to the Kent Downs containing almost 20% of all of the UK vineyards by area. However, vineyards currently account for less than 2% of farmland within the Kent Downs and it is considered by many that there is already overproduction of wine in the UK.	High level of support. Thought needs to be given about how this would be delivered and what funding might be used to do this.
Kent Downs planning guidance for viticulture and associated infrastructure	Provide standing advice and guidance for those looking to develop vineyard-related infrastructure within the Kent Downs National Landscape. Gives a level of clarity regarding the standards required to support development.	Vitally important to provide guidance from a strategic point of view. High priority for the Team.	Strong support in both workshops and in the questionnaire. A Kent Downs funded project that may be developed by staff or consultants and could be in collaboration with other Protected Landscapes where similar issues are shared.

Support communication between land managers, regulators, environmentalists and other stakeholders	This currently happens for some development within Medway and would help provide additional clarity and feedback for vineyards. Local Planning Authorities are being restructured so could be a priority for the new authorities.	Relevant for all planning authorities where viticulture is found. Kent Downs would become a key stakeholder and consultee where appropriate. Planning guidance would also help here.	Very popular in both workshops and in the questionnaire.
Address light pollution and impact on insects, bats and character of rural areas.	A very specific issue relating to development that can be within deeply rural areas.	Tranquil areas of the Kent Downs may be disproportionately impacted by light pollution. This could be incorporated into planning guidance.	Good support within the questionnaire but questionable as to whether this needs a specific project and should be incorporated into other projects.

4.4 Machinery and technology

Overview

There is specialist equipment that can be used to implement more sustainable viticulture practices. In addition, the advent of new technology can assist with disease prediction and potentially reduce the number of synthetic chemical applications. However, equipment can be expensive and cost prohibitive, particularly for small vineyards. Although covered in the biodiversity section, technology can increasingly be used to passively monitor biodiversity in vineyards. Specific machinery that could be targeted by phase 2 projects could include:

Direct drill attachment
Side discharge spreader

Side discharge mowers
Double sided trimmer attachment to help mow under vines

Key recommendations	Summary	Relevance to Kent Downs	Level of support
Provide grants for innovative machinery and techniques	Straightforward way of providing incentives for vineyards to adopt innovative machinery that can support sustainable and regenerative viticulture. Part funding adoption through Farming in Protected Landscapes applications is feasible.	Equally relevant in all areas but a good way to raise standards in the Kent Downs.	Popular in both workshops and questionnaires. Must look at how this kind of machinery can currently be provided through commercial hiring and what is needed locally.
Machinery sharing for small vineyards	Where purchase and perhaps storage of machinery is a barrier to adoption, one vineyard could purchase and hire to others and cost price. Machinery could also be hired on behalf of vineyards on a one-off basis so that it could be trialled. This could work well in conjunction with a viticulture cluster initiative.	As above	Grant funding is likely to require sharing of some sort. Received support within the questionnaire but probably more suited to smaller vineyards.
Promote adoption of technology (including AI) for disease prediction	Farming in Protected Landscapes as well as other grant funding could part fund or allow trials of innovative disease prediction software. This may enable a reduction in the amount of spray applications,	Relevant to all areas but perhaps of particular significance where vineyards are adjacent to protected sites or priority habitats.	Good levels of support for this initiative. Will be better suited to some vineyards than others.

4.5 Research priorities

Overview

Research and evidence should underpin all of the work that is done to promote sustainable practices. Work has been done in other parts of the world, but this doesn't necessarily transfer to the UK as climate (high humidity), biodiversity and land management practices are all different when compared to other wine growing regions. Some excellent research is already taking place that is providing guidance for vineyards in the Southeast of England. The challenge for this project is how research can be focused on the needs of the Kent Downs as well as learning from research done in other areas that can be applied to the Kent Downs. It may be sensible to work with other Protected Landscapes with similar geology as well as projects like Big Chalk to help understand and address research priorities.

Key recommendations	Summary	Relevance to Kent Downs	Level of support
Help vineyards collect consistent data relating to biodiversity initiatives	An essential part in understanding whether specific interventions have been successful. These should be well designed, including collecting baseline information but not being too onerous for vineyard owners.	Essential to understand the impact of viticulture in the Kent Downs and how best practice guidance can be developed.	The most popular of all research initiatives. May require preliminary work to understand what baseline data should be collected.
Understand water use and impact of chemicals on groundwater	Of particular importance, particularly due to the high levels of use of fungicides in vineyards. Methods of reducing, recycling and storing water are well established. The need for these activities within Kent Downs viticulture is not understood as well.	Particularly relevant as water runoff from chalk landscapes often ends up as groundwater used for drinking water. However, this is a broader issue relevant elsewhere.	Strong support but should be focused in specific areas where run off will have the biggest impact on groundwater and watercourses.
Support for interdisciplinary research	The elements of sustainable viticulture are complex and interlinked including soil science, ecology, chemistry, social science and winemaking itself. Interdisciplinary research can help to ensure that work carried out is relevant and takes a more holistic approach to sustainable viticulture.	Research is obviously relevant, but efforts must be made to make sure that any research pursued by a Kent Downs sustainable viticulture project has relevance locally. For example, looking at issues relating to chalk geology and/or flora and fauna vernacular to the Kent Downs.	Strong support for this proposal and a priority to develop both alongside and as an integral part of the next phase of the sustainable viticulture project.

**Research into Spotted Winged
Drosophila control and efficacy
of dead-end hosts**

Spotted Winged Drosophila is new to the UK and has the potential to impact grape yields significantly. Addressing this issue could reduce the amounts of insecticide used within vineyards. Currently, dead-end hosts can be used to attract the flies but prevent successful breeding. Whether this is the most effective method for controlling SWD is not established.

This research is relevant across the entire region and not specifically a Kent Downs issue.

A popular choice in the questionnaire

4.6 Advice and guidance

Overview

Vineyard owners and managers consistently stated at workshops that they wanted high quality impartial advice about best practice that could enhance the sustainability of their businesses without compromising yields. There is a significant amount of guidance available online (e.g. Regenerative Viticulture Toolkit, Nature Friendly Farming Network, Wine GB's Green Book etc.) as well as academic papers, viticultural consultants, agronomists and nature conservation organisations. Trying to understand all this information can be time consuming and confusing. There is also a lack of UK viticulture-based evidence to support some of the advice. Providing best practice guidance that is tailored to Kent Downs vineyards, without adding to the complexity of information available is a considerable challenge. However, a wide range of suggestions were proposed. Care must also be taken not to compromise the important role that viticultural consultants and agronomists play in supporting the industry.

Key recommendations	Summary	Relevance to Kent Downs	Level of support
Develop best practice guidance and training for Kent Downs vineyards that includes ways to reduce impacts of pest species	This could incorporate all of the learnings of the project and provide opportunities for consultants to provide specialist training for vineyards on subjects that will be most useful.	By incorporating best practice guidance for landscape character areas, information can direct actions that are most relevant at a Kent Downs scale.	The most popular initiative amongst questionnaire respondents though cautioned to focus on Kent Downs specific issues as there is a lot of generic best practice advice already.
Support with land management plans	Land management plans are an essential part of some certification schemes. Good quality advice at this stage of the vineyard management process can be more effective than trying to retrofit sustainable practices.	Support can ensure that best practices to enhance and conserve landscape character are embedded in the vineyard planning process.	Strong support in both workshops and in the questionnaire that reflects a desire from vineyards to have advice tailored to their land.
Support access to grant funding	There can be financial barriers to implementing sustainable practices. Grants are available but it is not always possible to be aware of all the opportunities.	Maximising the amount of funding supporting sustainable initiatives in the Kent Downs is a high priority. The Kent Downs NL also distributes grant funding so is in a good position to facilitate access to this funding.	Highly popular in both workshops and the questionnaire.
Vineyard support officers (impartial advice to enhance landscape and biodiversity)	A paid member of staff or consultant that might visit each Kent Downs vineyard annually to give up to date	A good way of spreading good practice within the Kent Downs. Perhaps there is a commercial	Popular option both in workshops and in the questionnaire.

	advice on sustainable viticulture and review sustainable initiatives.	conflict with other sources of advice currently available.	
Recommendations for cover crop choice (soil health, vine maintenance and biodiversity)	Cover crop choice, soil health, IPM and other specific options such as water use, hedgerow choice and water quality were all proposed but could be integrated into any best practice guidance.	Relevant where there are localised recommendations such as hedgerow species choice or recommendations for cover crops. Other advice may be more generic	All of these options received good levels of support.
Integrated Pest Management advice			
Viticulture farm clusters and demonstration vineyards	A means of providing advice to groups of vineyards and tailoring support to the needs of the group. Groups would need to be coordinated. Demonstration vineyards could help show best practice and give others confidence that sustainable measures work without compromising production.	Highly relevant as support and best practice focused on Kent Downs vineyards.	A choice that was popular within workshops but not as popular in the questionnaire results. However, very popular amongst those that supported it.

4.7 Who might be involved

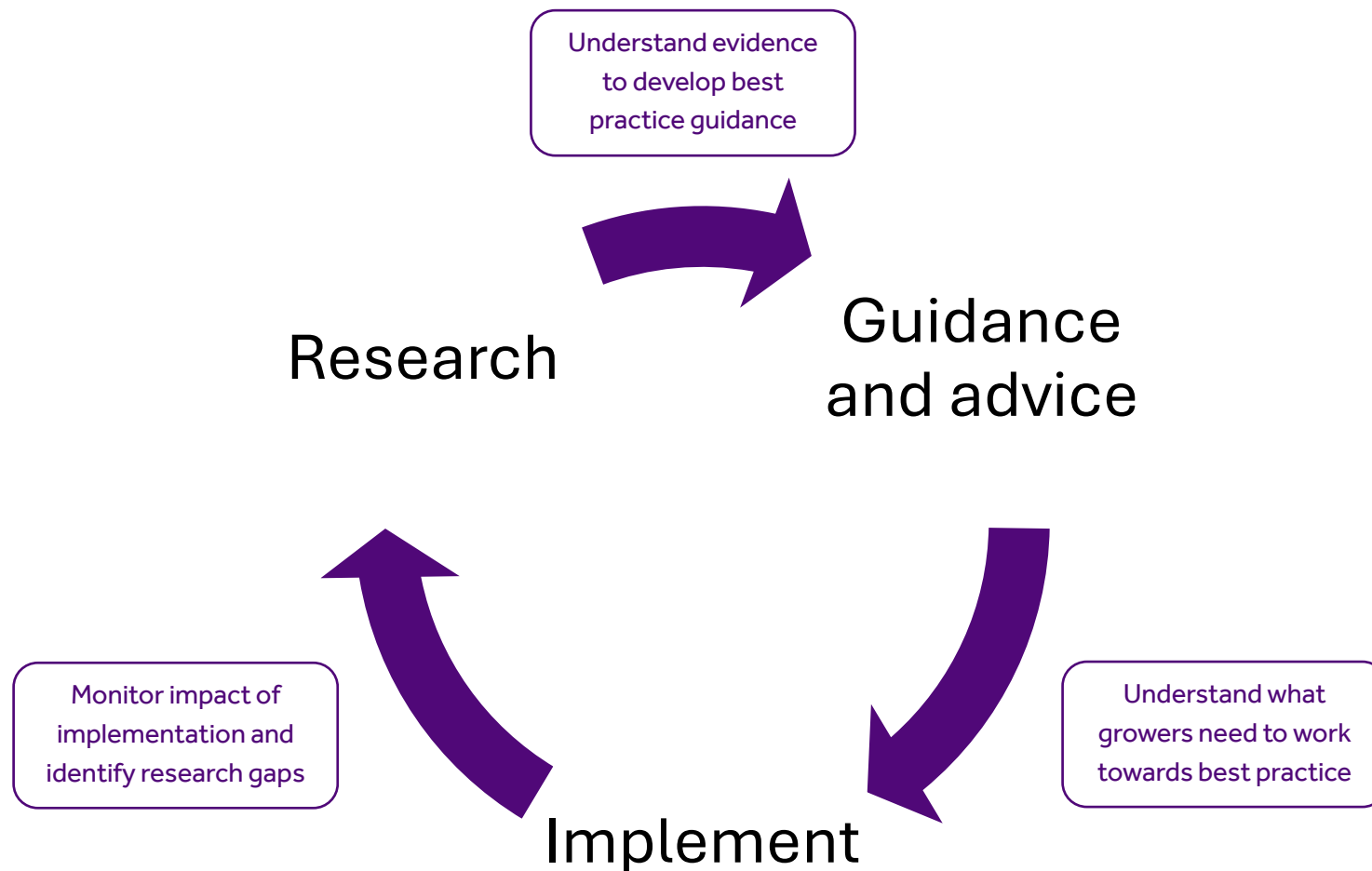
The wide range of organisations that have been engaged as part of this work has created a network of expertise that can help to implement the next phase of the work. The one-to-one interviews and the questionnaire specifically asked organisations and individuals how they would like to be involved in future initiatives, how their skills could best be deployed, and an indication of what resources might be required to facilitate their involvement. As this information has the potential to be commercially sensitive, this information has not been shared in this report but has been retained by the Kent Downs National Landscape to assist with the development of future projects.

The involvement of academic institutions, viticultural consultants, nature conservation organisations, local authorities, accreditation programmes, statutory agencies and most importantly, the vineyards themselves, will be critical to the development of robust, well researched and practical sustainable viticulture initiatives.



4.8 Next steps

Evidence from all parts of this scoping project support a research, guidance support approach to improving the sustainability of viticulture in the Kent Downs. Consequently, the projects that are suggested should incorporate all three elements of this approach wherever possible. The aim should always be to provide well researched, straightforward advice to growers and to give growers confidence and resources to implement best practice. Monitoring and feeding back into research will ensure that best practice standards continue to be improved and refined. This report will provide a framework for future project development and funding applications.



Possible phase 2 projects

There have been many possible projects or initiatives put forward in the various phases of this project. Some of these are well suited to projects led by the Kent Downs National Landscape or its partners. Others are best led by local authorities, and some are best led and developed by the viticulture sector themselves. The list of possible projects below is not exhaustive, neither are the recommendations the only way to approach some of the issues and initiatives raised. They are possible next steps that the collective of organisations involved in this scoping study could pursue and were the issues that generated the highest level of interest. Possible projects and initiatives include:

Vineyard health	
	Managing blocks to maximise biodiversity, soil health, grape yield and predator species.
What (outputs)	• Advice to vineyards based on best practice established to date. • Cover crop trials to include wildflower mixes (based on research by Duncan Westbury, Plantlife, Bumblebee Conservation Trust and others). • Establish whether some wildflower strips can be compatible with stewardship or SFI options. • Contribute to the purchase of machinery to assist regenerative farming and facilitate renting/sharing of equipment. • Contribute to cost of innovative technology to monitor biodiversity/predict disease or other environmental threats. • Support for soil testing to establish baseline.
Who (possible partners)	Vineyards Kent Downs National Landscape Team Machinery providers Regenerative Viticulture Foundation Natural England agri-environment advisors Consultants and agronomists to help with advice and best practice guidance
Aims (outcomes)	• Reduce synthetic inputs. • Reduced cultivation of soils. • Allow greater uptake of regenerative techniques. • Increase carbon sequestration/organic content of soils. • Increased uptake of stewardship and/or SFI within vineyard blocks. • Increase predatory insects.

- Benefit pollinators.

Vineyard connectivity

What (outputs)	Provide advice and guidance on vineyard connectivity to include: • Hedgerows, windbreaks (use of dead end hosts). • Advice on which habitats might be of most benefit locally. • Advice on habitat features to place around the vineyard. • Support to monitor biodiversity. • Facilitate access to grants, particularly Countryside Stewardship, SFI and Farming in Protected Landscapes.
Who (possible partners)	Vineyards Kent Downs National Landscape Team Natural England agri-environment advisors Nature conservation organisations, consultants and agronomists to help with advice and best practice guidance. Local Nature Recovery Strategy staff
Aims (outcomes)	• Reduce synthetic inputs as more natural predators. • Increased levels of biodiversity. • Better uptake of agri environment schemes by vineyards. • Improved connectivity of habitats. • Implementation of Local Nature Recovery Strategy.

Vineyard clusters

What (outputs)	Create clusters of vineyards (or a single cluster) within the Kent Downs National Landscape to help share: • Machinery. • Sharing knowledge and best practice sharing. • Meetings and WhatsApp groups. • Support for gaining accreditation and certification. • Support for funding.
Who (possible partners)	Vineyards Facilitator (could be linked with delivery of vineyard health project)

Access to wider Sustainable Viticulture network of organisations

Aims (outcomes)

- Increased confidence amongst vineyards to apply sustainable viticulture practices.
- Increased access to funding for sustainable viticulture.

Sustainable viticulture tourism

Tell the story of sustainable viticulture by:

What (outputs)

- Publicising best practice (social media, literature, on site interpretation).
- Using good sustainable viticulture practice to inform marketing (possibly including certification).
- Integrate sustainable tourism ethos into wine tour offer (transport, accommodation etc.).
- Develop a Kent Downs wine brand by sharing sustainable practices and through conservation and enhancement of landscape character.
- Investigate PDO for Kent Downs wines.
- Demonstration vineyards as a means to promote best practice.

Who (possible partners)

Vineyards
Branding and marketing consultants
Sustainable tourism organisations
Global Geopark

Aims (outcomes)

- Better understanding of efforts made by wine businesses to be sustainable.
- Increased interest in visits to Kent Downs vineyards.
- Increased adoption of certification schemes.
- More visits to vineyards and additional income.

Sustainable viticulture growth

Provide improved clarity for local planning authorities and vineyards.

What (outputs)

- Publish Kent Downs planning guidance document.
- Support communication between land manager, regulators, environmentalists and other stakeholders.
- Spatial development strategy for orchards and vineyards.

Who (possible partners)

Kent Downs National Landscape Team
Vineyards

Local Planning Authorities

Aims (outcomes)

- Clarity for vineyards in terms of what development is more likely to be acceptable.
- Increased employment opportunities in rural areas.
- A better understanding of how viticulture fits within the landscape and how this might be managed in the future.
- Managed development in rural areas.

Sustainable viticulture evidence

It is likely that this project will need to be developed as part of a wider project that collects evidence to support the understanding of the success of an initiative. Equally, it may need to be reactive and opportunistic, taking advantage of opportunities elsewhere and working with students to encourage them to research sustainable viticulture actions.

What (outputs)

- Create a shortlist of research questions (cover crops, IPM etc.).
- Pursue funding applications for research funding (in partnership with research body).
- Work with universities to provide support and opportunities for students.
- Help vineyards to carry out simple, repeatable and standardised research to measure progress against sustainable standards.

Who (possible partners)

Universities, Niab
Kent Downs National Landscape Team
Vineyards
Certification bodies

Aims (outcomes)

- Understand research priorities.
- Ability to provide evidence to establish best practice for issues that are particularly relevant for the Kent Downs.
- Increased delivery of ecosystem service within vineyards.
- Vineyards can provide evidence of the impact of their actions.

Appendix I: Summary of workshops

Workshop attendees

Name	Organisation
Thursday 21st January – Dog and Bear Hotel, Lenham	
David Catt	Ragstone Ridge
Tim Ferris-Brown	Fruit Advisory Services Team LLP
Lucy Smith	Silverhand Estate
Tom Starr	Silverhand Estate
Henry Sugden	Defined Wine
Doug Taylor	Hope Farm
David Thring	Elvis and Kresse
Darryl Ward	Simpsons Wine
Will Webber	Silverhand Estate
Fatima Bajwa	Kent Downs National Landscape
Mike Phillips	Kent Downs National Landscape
Nick Johannsen	Kent Downs National Landscape
Thursday 28th January – Dog and Bear Hotel, Lenham	
Louise Butfoy	Kent Wildlife Trust
Lee Croxton	Gravesham Borough Council
Pip Daws	Kenish Stour Countryside Partnership
Andrea Griffiths	Campaign to Protect Rural England Kent
Rory Harding	South East Water
Stuart Harris	Nature Friendly Farming Network
Tony Harwood	Maidstone Borough Council
Chas Holt	Adonis Blue
Rebecca Levey	Butterfly Conservation
Anna Stevens	Maidstone Borough Council
Daniel Tuson	Natural England
Jenny Walker	RSPB
Natalia Zielonka	Durrell Institute for Conservation and Ecology
Fatima Bajwa	Kent Downs National Landscape
Nick Johannsen	Kent Downs National Landscape
Mike Phillips	Kent Downs National Landscape
Thursday 5th February – Online	
Hester Fenwick	Brabourne Vineyard
Belinda Kemp	National Institute of Agricultural Botany (NIAB)
Richard Lewis	Chapel Down
India McGrath	Hatch/Domain Everemond
Ed Mansel Lewis	Knight Frank
Will Moreno	Silverhand Estate
Paula Nesbitt	Vinescapes
Guy Nevill	Birling Estate
Rosie Saltcrookford	Country Land & Business Association (CLA)
Ellie Savage	Regenerative Viticulture Foundation
Amelia Sidebottom	Oastwood Vineyard
Becky Sykes	Regenerative Viticulture Foundation

Name	Organisation
Henry Warde	Squerries Estate
Sarah Harrington-James	Kent Downs National Landscape
Fatima Bajwa	Kent Downs National Landscape
Nick Johannsen	Kent Downs National Landscape
Mike Phillips	Kent Downs National Landscape
Monday 9th February – Online	
Richard Goodenough	Chartham Vineyard
Roz Waller	Chartham Vineyard
Luke Wolfe	Whitewolfe Estates/Agri-Pro Ltd
Tuesday 10th February – Online	
Rachel Boot	Kent County Council
Marian Boswall	Marian Boswall Landscape Architects
Dane Buckman	Canterbury City Council
Bex Cartwright	Bumblebee Conservation Trust
Simon Curry	Medway Council
Rhianna Dix	Environment Agency
Dave Harris	Medway Council
Sean Henry	Medway Council
Ben Lord	Environment Agency
Rhianne Pearson	Ashford Borough Council
Harry Rayner	Kent County Council
Georgina Wallis	Hutchinsons, Agronomic Services
Kate Wilson	Kent Downs National Landscape
Sarah Harrington-James	Kent Downs National Landscape
Fatima Bajwa	Kent Downs National Landscape
Katie Miller	Kent Downs National Landscape
Mike Phillips	Kent Downs National Landscape
Nick Johannsen	Kent Downs National Landscape

A summary of the opinions expressed is included in the following tables. Note that these examples have been given by workshop attendees and all ideas expressed have been retained, though some have been combined to reduce repetition. These do not necessarily reflect the views of the Kent Downs National Landscape.

What examples of best practice already take place in Kent Downs vineyards

General best practice

Hand planting (no till).

Avoid plants which attract injurious insects/ fungi.

Reduced use of chemicals.

Arable plant strips.

Nearly 40% of land devoted to nature at one vineyard represented.

Species monitoring.

Disease prediction services to reduce pesticide applications.

Acknowledgement that viticulture and orchards can support biodiversity if managed well.

Vineyards have a lifespan of around 20 years, longer than many arable crops, allowing greater scope for landscape-scale planning and experimentation.

Within vine best practice

Airflow management/mildew control – Includes low-growing cover crops, grass cutting timing, and leaf stripping. Reduces chemical applications.

Sheep grazing (and other species including goats).

High trellis systems to allow taller cover crops.

Using strimmers/weeders instead of tilling.

Some research points to leaving long grass for beneficiary insect nesting, rather than focusing on flowers for pollinators.

Multi-species cover crop.

No till since planting.

Permanent green cover.

Reduce passes (e.g. mow every other row).

Wildflower planting, including nectar-rich alleyways, to support pollinators.

Retention of arable weeds where appropriate to increase plant diversity.

Headlands, hedgerows and other interventions outside of vines

Planting native hedgerows (hawthorn, blackthorn, oak).

Wildflower meadows, chalk bunds for insects, big scrapes, ponds, hedgerows, and roundels.

Dead-end hosts to reduce pests.

Work with Operation Turtle Dove to create good habitat.

Encouraging raptors (perches).

Yellowhammer hedgerows.

Ponds to encourage amphibians.

Buffer strips (6–8m) for biodiversity.

Considering 3D buffer zones to manage run off, protect waterways.

Wildlife towers.

Leaving large areas unplanted to provide space for nature.

Installation of nest boxes and insect hotels (with recognition these should complement, not replace, habitat creation).

Accreditation, certification and best practice guidance

Sector Mentor (US initiative but with webinars) promoting the Vida Cycle

- <https://vines.vidacycle.com/about/> A regenerative viticulture programme used by quite a few UK vineyards. Has apps that help gather data about the vineyard and make better decisions.

Organic status.

Sustainable Wines of GB status.

People and communities

Reminding of the links to historic landscapes...hops etc.

Provide access and manage paths.

Restore historical land use where possible to benefit local community.

Reassure residents and stakeholders about land-use changes.

Vineyards as employers of local people.

Increasing awareness of the wider community around vineyards, with efforts to work collaboratively with local residents.

Recognition of vineyards as drivers of rural economic activity, attracting visitors and supporting cafés, shops, pubs and wider tourism.

Where might vineyards pose a threat to the Kent Downs landscape

Environmental and biodiversity

Limited biodiversity niches, particularly in intensively managed sites.

Risk that vineyards may disrupt already stressed ecosystems if poorly designed.

Climate change. Loss of water in the environment.

Water use in wine production and pressure on local water supplies.

Lack of understanding of bird impacts, both positive and negative.

Loss of hedgerows and headlands, partly due to policies that do not align well with viticulture needs.

Range and quantity of chemical applications.

Insufficient local data and research, including evidence to guide spraying decisions.

Limited knowledge of local pest dynamics; for example, some pests common in France are not currently an issue locally.

While nitrate use may be lower, there are concerns about other pesticides entering aquifers.

Planning and tranquillity

Public access, tours, and visitor centres need careful planning to be sensitive to the area.

Approach to management of vehicular access to vineyards - damage to the character of rural roads and tranquillity.

Creeping development for infrastructure to support the vineyard.

Loss of food-producing land as vineyards replace arable or pasture fields.

Concern among local communities that vineyards represent industrialisation of the countryside, due to associated roads, buildings and infrastructure.

Vines themselves may not be the main issue, but rather the scale of machinery, wineries and supporting infrastructure.

It is an industry, but as land use is agriculture it comes with associated permitted development rights.

Other

There are powerful economic drivers for some viticulture.

Landscape impact can be disproportionate as it is often on the scarp slope (visual and adjacent to important and protected habitats).

Ideas proposed for future projects supporting sustainable viticulture

Guidance and advice

Viticulture farm clusters.

WhatsApp Group.

Knowledge sharing around grants and funding.

Provide good, no-nonsense best practice guidance for vineyards in Kent Downs.

Provide guidance that complements others advice and standards e.g. with Sustainable Wines GB.

Guidance on water management and understanding future rainfall patterns, also including the approach to water retention in the landscape and reduced demand on water resources.

Collaborative work around training - focusing on careful planning and integration of measures.

Better guidance for soil health and how to maintain it.

Vineyard support officers.

Support with land management plan.

Provide guidance on importance of monitoring and precision farming.

Demonstration vineyards.

Specialist support for small vineyards.

Recommendations for wildflower mix.

Recommendations to reduce Spotted Winged Drosophila without chemicals.

Recommendation for hedgerow choice

Guidance to increase raptor numbers

Research

Provide evidence base and research findings.

Understand what the blockers are to adopting sustainable practices, and how to overcome (one of which is capacity).

Provide structure to evidence gathering on vineyards... baseline and monitoring, streamlining data and evidence; consistency of data collection and analysis - discuss this at the beginning!

Applying and sharing best practice with top fruit and solar farms.

Understand agri-chemical impact on biodiversity, soil and carbon sequestration.

Seek to understand risks from the pesticide load etc. on water environment.

Research and evidence literature review. Research gap analysis.

Understand longevity of viticulture in Kent Downs.

Find out if dead end hosts work in England and how extensively they need to be deployed to be effective against Spotted Winged Drosophila.

Effective biological control of Spotted Winged Drosophila.

Research into spore catching technology to aid disease prediction.

More interdisciplinary research and data collection.

Research and promote land sharing to understand measured impact on biodiversity.

Understand in-vineyard opportunities where vines are not part of the wider farm.

Design vernacular seed mix of native provenance.

People and communities

Try off site interactive activities and learning through multi media.

Understand people's fears around viticulture and help disseminate better information about sustainable viticulture.

Interpretation promoting sustainable practices.

Collaborate with Plumpton College viticulture course to influence future workforce.

Educational access.

Permissive access.

Branding and marketing

Linking landscape to marketing for wines and vineyard tours (creating a regional wine story).

Develop a clear brand benefit from Kent Downs sustainably.

Wildlife is an important part of telling the story of the wines. Kent Downs provenance can assist with this.

Help meet consumer and buyer expectations for sustainability.

Provide training including for selling the story of sustainable viticulture.

A sustainable viticulture farming award.

Use development of a Protected Designation of Origin (PDO) to drive positive change.

Link tourism revenue to food system and landscape

Machinery and technology

Practical support for small vineyards (machinery sharing etc.).

Support to adopt technological advances.

Trial disease prediction software (AI and other new technology).

Initiatives for biodiversity

Support vineyards to integrate nature into vineyard blocks.

Promote Regenerative Viticulture Foundation's one block challenge.

Help to ensure water-saving and biodiversity measures are in place from the start, especially for new entrants or diversifying farms.

Supporting water quality protection measures (preventing nutrient/pesticide runoff).

Work with Defra and growers to refine and increase uptake of Countryside Stewardship and Sustainable Farming Incentive measures within vineyards.

Design approaches to on site water management capturing and using water in context of landscape character.

Identify easy to implement biodiversity measures.

Piggyback on other projects - e.g. North Kent Grazing Plan.

LNRS mapping can be used to guide initiatives at a larger landscape scale and use green finance initiative.

Support acoustic and other passive monitoring and better biodiversity monitoring in general.

Facilitate more tree planting (native species windbreaks, trees and hedgerows).

Create buffers around vineyard that connect to other habitat.

Focus on nature recovery so no need for bird boxes and bat boxes.

Support for soil regeneration.

Support vineyards to create species-rich grass swards.

Promote local chestnut for posts.

Promote areas of scrub away from vines.

Planning

Establish a Kent Downs role in supporting viticulture businesses, especially around planning

Produce good practice guidance for the development associated with viticulture in the Kent Downs - guiding principles.

Consultancy support for design guidance for viticulture - external support.

Communication - between land managers, regulators, environmentalists and other stakeholders
- note that the Medway Developers forum is a good model - build on the individual's ambition.

Understand traffic data and manage for increase in traffic.

Joined up approach to planning guidance including transport and infrastructure. Address the concerns around impact of vineyards.

Spatial development strategy for a landscape with vineyards (to accommodate exponential growth).

Address potential light pollution effects on wildlife (e.g., bats, insects).

Appendix II: Summary of one-to-one interviews

Summary of Interviews

Sam Trevey – Red Tractor

Red Tractor is a not-for-profit organisation and ensures standards required by most supermarkets. It is owned by farming unions and the British Retail Consortium. As an organisation, Red Tractor is open to collaboration around areas such as PDO or working with Wine GB. Key features of Red Tractor include:

- High levels of customer recognition.
- Inclusion of an independent audit.
- Relatively inexpensive for farms.
- 3rd parties provide certification and assessment. Red Tractor sets standards.
- Standards more around environmental protection. LEAF focuses on environmental enhancement.
- Sustainable Farming Incentive and Countryside Stewardship generally goes further than Red Tractor standards, hence the financial incentive offered.
- Although there is a standard for wine grapes, it is not used widely and usually just by those farms that use Red Tractor for their other production.
- Main standards relating to grapes are:
 - Food safety testing (low risk with wine grapes)
 - Irrigation water quality (water testing)
 - Applications to soils
 - Pesticides (safe storage – professionalisation of operatives)
 - Recording of pesticide application
 - Pesticide kit is tested and calibrated
 - Residue tests required for spraying
 - IPM plan needed and approved by appropriate person
 - Soil management plan
 - Traceability through the supply chain
 - Plan for wildlife management and conservation
 - Monitor and optimise energy use

Sarah Vaughan-Roberts – Nature Friendly Farming Network (NFFN)

The Nature Friendly Farming Network (NFFN) is a farmer-led membership organisation that supports farmers who want to restore the balance between farming and nature. The network is also open to the public and other organisations. It is also an effective lobby for the farming community and has good links with Defra.

Membership of NFFN is free. By joining, members gain access to:

- Exclusive resources & training (incl. a regular newsletter)
- Policy updates & advocacy opportunities
- Member discounts & special offers
- A community of like-minded individuals

Nature Friendly Vineyard Network

Whilst the organisation has grown rapidly in recent years, most of the engagement is with arable and livestock farmers. This initiative is an effort to engage the viticulture sector that contains a large number of new players and small landowners. It is a very diverse group. NFFN are currently applying for funding to support the Nature Friendly Vineyard Network. it will be:

- A dedicated viticulture hub within the resources on the NFFN website
- Provide resources and a network for vineyards
- Provide peer support and sharing of best practice for those wanting to deliver more nature friendly viticulture
- Build strong collaborations with conservation charities, local communities, vineyards and Wine GB

NFFN say the Nature Friendly Vineyard Network will

- Build a national community of vineyards committed to wildlife-friendly practices.
- Provide evidence-based guidance on low-cost, high-impact interventions.
- Develop an online information hub featuring guidance, case studies and funding routes.
- Deliver training, demonstrations, peer-learning opportunities and regional "Vineyard Champions."
- Strengthen the sector's voice in agricultural and environmental policy.
- Engage the public through vineyard events, communications and nature-friendly branding.

Subject to funding, the project is due to start in July 2026. For more information the Vineyard Project Development Officer can be contacted at mint@blueyonder.co.uk.

Emma Rix and Anne Jones – Sustainable Wines of Great Britain (SWGB)

SWGB is the certification scheme for members of Wine GB. It is for both vineyards and wineries and includes:

- Setting minimum standards for the audit and certification
- Vineyards encouraged to adopt best practices
- When vineyards and wineries evaluate and plan their sustainable actions and set targets they can achieve gold standard with three years of data
- Standards will rise over time and become more rigorous
- Retailers are beginning to take it more seriously and it is essential for English wines that are stocked by Marks and Spencer
- Desk audit is external and followed up with internal in person spot checks. The subsequent reports are then externally audited
- 43% of UK hectareage is certified and more is in the process of becoming certified
- It is aimed at all sizes of vineyard though smaller members of Wine GB can take longer to become accredited as it does require some work providing the evidence
- Price depends upon the size of the vineyard

There is some thought that where evidence for standard is required, there could be more done to align between different certification schemes such as LEAF Marque, Red Tractor etc. This could also be the case for Sustainable Farming Incentives.

One of the key challenges for the industry to become more sustainable is considered to be mildew control. Warmer and damper weather is likely to make this more of a challenge. It is the main cause of the use of chemicals for both organic and conventionally grown grapes. New products and technology are being developed to combat mildew and reduce applications. This is critical, as is getting high quality information about the effectiveness of these advances.

Vineyards can be very effective at sequestering carbon as they can eliminate tilling and permanent cover can sequester carbon. Above ground carbon can be recycled into the soil.

The Kent Downs Sustainable Viticulture initiative can help by providing SWGB information that can be shared with members about targets, initiatives, opportunities for funding. SWGB would encourage a collaborative approach.

Victoria Prior, Abbey Holman and Dan Stevenson – LEAF

Victoria Prior – LEAF Marque Network and Partnership Lead

Abbey Holman – LEAF Marque Standards Lead – certification team plus guidance and support

Dan Stevenson – Head of Sustainable Farming

Overview

LEAF is a members-based charity. LEAF's purpose is to promote & support more sustainable farming practice, to help create resilient food and farming systems for future generations.

This is done through three pillars of activity, within which Integrated Farm Management* sits at the core : 1. Trust through LEAF Marque certification, which is growing year on year, through the uptake from the majority of UK retailers – some working to global sourcing with LEAF Marque, and now, wholesale in the Out Of Home sector. 2. Connecting farmers, innovators and industry to understand best practice sustainable farm management and how it can be applied most effectively to each farm's unique situation. This happens through The LEAF Network, of Demonstration Farms and Innovation Centres (research establishments), with events, workshops and research. 3. Educating, with engagement to promote more sustainable choices, LEAF works with schools, people and farmers across the UK, in school and on farm, as well as the delivery of the annual Open Farm Sunday event.

*Integrated Farm Management is a well proven, pragmatic framework that is applicable to diverse sectors and geographies. It is a plan-based approach, linking management decisions to 9 key areas of farm operations and facilitates continuous improvement and a range of entry points.

Extent of operations

LEAF Marque operates in 55 countries. In the last 4 years the shift of membership has moved from 75% UK members to 62% international, due to the uptake of LEAF Marque certification for global supply, as the majority of fresh produce carries the LEAF Marque and it is a requirement for produce in Tesco, M&S, Waitrose, Lidl, Aldi Ocado, and Co-op. Although wine grapes are a relatively small part of the farms with LEAF Marque certification there are growers from the UK, Ireland, Portugal, South Africa and Chile that have LEAF Marque certification. To support this international expansion LEAF is extending peer-to-peer learning and knowledge exchange globally through projects and development of The LEAF network, of demonstration farms and innovation centres.

The LEAF Marque

[The LEAF Marque Standard | LEAF \(Linking Environment and Farming\)](#)

LEAF Marque audits are carried out by 3rd party certification bodies and are activated on a whole farm basis, with all enterprises and outputs audited – as opposed to just one area / crop, in line with LEAF's core adoption of Integrated Farm Management. Certification carries standards in all of the 9 sections of Integrated Farm Management

- Organisation and Planning
- Soil Management and Fertility

- Crop Health and Protection
- Pollution Control and By-product Management
- Animal Husbandry
- Energy Efficiency
- Water Management
- Landscape and Nature Conservation
- Engaging Society

IFM's underlying principle is that all of the 9 sections underpin economic success rather than compromise it. IFM's underlying principle is that all of the 9 sections are considered. Rather than just considering focus areas in isolation, IFM ensures measures taken in one area do not adversely impact another, while generating synergies that benefit multiple areas. IFM helps growers on their sustainability journey by supporting economic performance, the environment and social health.

LEAF Marque standard carries the IFM philosophy of continuous improvement, with the farmer / grower setting targets through plans and demonstrating progress towards the targets at audit. The audit and LEAF Marque standard, covers the whole farm, with the crops / products that have been baseline certified (via Red Tractor or Global Gap), carrying the certification and enabled to use LEAF Marque logo).

LEAF marque consists of core standards which all need to be met and advanced standards that are optional. 5% of the farm must now be managed as habitat area in the new standard 17.0. Some measures that might fit for viticulture based on the 9 sections of IFM include:

Landscape and Nature

Headlands and alleys – Establish wildflower margins and grassy alleyways.

Plant hedgerows around the vineyard. Create habitat zones (e.g., scrub, ponds, woodland).

Biodiversity Monitoring

Soil Management

Mixed species ground cover or organic mulch between rows

Soil monitoring

Return organic matter (e.g., prunings, compost) to the soil

Pollution & Water Management

Buffer strips

Water quality monitoring

Mapping

Rain water harvesting

Aligning with other standards

To be LEAF Marque certified, growers and farmers are required to have baseline farm assurance certification in place (e.g. Red Tractor, Global Gap, etc.). It is common for the LEAF Marque audit to happen at the same time as these audits.

LEAF would like to promote IFM and the LEAF Marque to viticulturists in the Kent Downs as a management tool to raise sustainability standards; with an emphasis placed on knowledge exchange and peer-to-peer learning, including farmers and advisors, which can be an important component of the adoption of sustainable practices.

Natalia Zielonka – Durrell Institute of Conservation and Ecology (DICE)

Natalia Zielonka – Research Fellow – E3 Sharing Space for Nature – DICE - University of Kent

Natalia currently undertakes interdisciplinary research at DICE, aiming to understand how multifunctional landscapes can be designed to deliver benefits for often competing aims, including production, infrastructure and biodiversity. This includes investigating the impacts of a bison reintroduction on woodland recovery, exploring how the public engage with actions for biodiversity, and understanding the relationships between nature and people's wellbeing. This includes investigating soundscapes and how these might reflect the levels of biodiversity in an area.

PhD Research into certification

Natalia completed her PhD at the University of East Anglia, researching the impacts of English viticulture on biodiversity between 2021-2022. One aspect of this work investigated whether organic certification, or accreditation with Sustainable Wines GB (SWGB) made any significant difference to biodiversity using birds and ground arthropods as indicators. She found that arthropod abundance was higher on organic vineyards, whilst bird diversity was lower on SWGB-accredited vineyards. No other effects of certification were found on biodiversity. It is thought that the use of progression towards higher standards across many categories, rather than evidence-based minimum standards used in many certification schemes, may have resulted in a lack of benefits for biodiversity based on the certification status. This may have changed since the research was carried out. A conclusion drawn was that evidence of change and looking at the impacts of specific practices (e.g. agrochemical use) rather than blanket certifications or management-regimes, is more important than habitat mapping and practices. However, certification schemes can be useful as they do resonate culturally but people have trust in them.

Bird damage

In addition, studies of damage caused by birds showed that bird damage to wine yields was minimal, especially in comparison to the effects of management and inter-annual variation in yield. Damage can be high at the edge of fields as birds may shelter in windbreaks and hedgerows and take fruit from the rows near field edges. Bird impacts in the middle of vineyards are usually low. Annual variations and vineyard management are much more significant factors impacting grape yields than birds.

More research into the impacts of specific management techniques is required as much of the research into sustainable viticulture has taken place elsewhere in the world.

Soundscapes

Natalia recorded vineyard soundscapes as a passive approach to monitoring bird populations, and to better understand how the relationship between vineyard visitors (e.g. on wine tasting tours), and the vineyard landscape may be impacted by birdsong. Acoustic recordings accurately reflect bird diversity, though not abundance, and louder and richer soundscapes enhance visitors' experience.

What does work

Landscape scale biodiversity measures are needed to provide connectivity, and spaces that are devoted to biodiversity adjacent to vineyards may also be key.

Some practices that can be advocated within vineyards:

- Increasing ground cover – this can be achieved by reducing herbicide use, mowing intensity and sowing cover crops, grass mixes or wildflowers.
- Headlands can allow vegetation to grow longer without the need for mowing, as there are no mildew issues here.
- Some vineyards still manage 30cm of vegetation ground cover between vines.
- Herbicide use should be minimised – Reduces ground vegetation cover, and increases ecotoxicity, which is associated with lower biodiversity.
- Reducing ecotoxicity arising from agrochemicals is key. This includes reducing applications frequency and using less-ecotoxic chemicals.
- Integrated Pest Management can allow issues to be targeted only when needed. Technology may help here.

A standardised way of monitoring vineyards is required that accurately reflects levels of biodiversity. Acoustic monitoring can help with this as a passive method, especially as the technology is becoming increasingly accessible.

DICE would be keen to be involved in taking this work forward and they also have an Innovation team that specialises in biodiversity consultancy and supports making informed decisions and translating them to practice.

Alice Parfitt – Buglife

Alice Parfitt – Conservation Officer, Changing Chalk

Trial sowing of wildflowers between vine rows

Two trials have been funded in vineyards in Sussex. The work was supported by the University of Sussex and built on a previous PhD that had taken place. The work sowed a wildflower mix at two vineyards of very different scales, Rathfinny and Everflyht. The wildflower mixes were sown in the alleys between vines and were a chalk grassland mix. The mix was tailored to chalk grassland and was not designed to favour prostrate plants. The results looked at the success of the flower mixes and the presence of pollinators. The aim of the research was to find out whether pollinator and wildflower mixes should be recommended to vineyards.

The seed mix did very well on one site and not on the other, despite the soil profiles both looking appropriate for the seed mix. It is thought that this is because one of the sites was wetter. A final paper will be published by the University of Sussex in the autumn, but it is unlikely that Buglife will be recommending wildflower mixes in vineyards. The reasons for this are:

- The risk of alleys becoming biodiversity sinks due to the levels of pesticide application
- Predatory wasp species require longer grass, which can be created by relaxing mowing or grazing. These may be favoured by some vineyards
- Although more research is needed, it is thought that many pesticides may not just impact the target species. Fungicides, both organic and non-organic may also be detrimental to invertebrates, especially molluscs.
- Actions for in-vineyard biodiversity may be better suited to areas outside of the rows themselves.

Vineyard enhancements for biodiversity

However, plenty can be done in vineyards including:

- Sow seed mixes on headlands
- Managing hedgerows using native species, allowing hedgerows to become untidy and have long grasses at the base
- Having refuge areas from chemicals, mowing/grazing and machinery
- Leaving vertical structure in vegetation wherever possible, especially overwinter
- Adding ponds and other freshwater
- Well-managed flower-rich areas
- Diversity of species to allow for flowering for an extended period
- Connectivity really important as some solitary bees will only move up to 500m.

Support should be around holistic advice about managing the farm landscape. If the focus is the alleys then it may be missing the point. Generic advice maybe enough for most vineyards but being able to identify something special in a vineyard might act as a catalyst for biodiversity work.

Sarah Arnold – Niab

Sarah Arnold – Research Lead in Applied Entomology

Belinda Kemp – Group Lead of Viticulture and Oenology

Research using chamomile

Sarah's role is to study insects in agriculture, including ways to manage crops with minimal synthetic chemical inputs and Belinda has worked at Niab since 2023 after spending time in the wine industry in Canada. The viticulture and oenology part of Niab will close imminently but is likely to reemerge under new ownership. However, nothing is confirmed as of January 2026.

Niab has conducted trials into the use of chamomile in vineyard alleys. This was trialled as a companion plant but looked at the impact of the plant on pollinators, predators and soil health. Chamomile has flowers that are accessible to pollinators, can have a positive impact on plant growth near them and may have chemicals that can deter pests. It is also fairly prostrate and not woody so doesn't interfere with vineyard operations. Acoustic research was also undertaken by Baker Consultants on underground invertebrates where passive recordings were used to estimate levels of invertebrate activity under the ground.

Results

When establishing the plants, each of the trial plots sprayed off existing vegetation with herbicide. One trial plot direct drilled the seed, and the others broadcast the seed. Direct drilling achieved better coverage of chamomile with less other plants. The chamomile proved to have a positive impact on hoverflies, bees and butterflies without causing a significant change in the vines and the levels of pests observed.

Acoustic work initially looked to show an encouraging increase in underground invertebrates but follow up proved inconclusive.

More research is needed on seed mixes. Work has been done on top fruit and some of this can be applied to vines, though checks need to be made to ensure that plants don't encourage pests. In addition, small scale trials don't show what happens to populations in the wider landscape rather than just within the vines. It often takes three to five years for plants to properly establish and to have a measurable impact on invertebrate communities.

Other factors

Alleyway crops are planted by viticulturists for a reason. For example, legumes are often planted on clay soils to break up the soil and improve nutrient availability. Others may use plants as part of an Integrated Pest Management regime, planting every other row and alternating every few years. Ultimately, yield matters and it will be difficult to recommend a one size fits all seed mix, even for vineyards on chalk. The cost of the seed and the time taken to manage the sward will also be important. As well as tall vegetation increasing humidity and the likelihood of mildew, it can cause shading of fruit. There is currently a glut of English wine and supply is outstripping domestic demand for wines that cost on average, £30 per bottle.

It is considered that insecticide applications on vines may be lower than those on top fruit, but fungicide applications may be higher.

Priorities for future work

The priority for future research should include interdisciplinary approaches to interactions between plant communities, vineyard management and invertebrates to get a better understanding of the ecosystem services provided by different systems of management and the requirements of individual vineyards. Long-term data is required to fully understand these interactions, and it is important that horizon scanning is included as new pests are arriving from the continent on a regular basis. Understanding the impact that alleyway plants might have on the grapes and wine are also important as volatile aromas and other chemicals may alter taste. This is a problem that some have noted when using regenerative farming techniques. There is also a dearth of information on spiders and harvestmen in vineyards.

Other priorities would be to set up a platform for sharing and understanding best practice for biodiversity, IPM and other relevant issues. Niab would be keen to investigate this work as part of a delivery phase of the Kent Downs Sustainable Viticulture project, subject to available funding and capacity.

Becky Sykes – Regenerative Viticulture Foundation

Becky Sykes – Programme Director

About Regenerative Viticulture Foundation

Becky is the only paid member of staff but there is also some paid consultant support (Anne Jones) and an intern and volunteers (including Ellie Savage). This is a small team for a global initiative and there is a heavy reliance on volunteer support.

As a global non-profit (Registered as a charity in the UK) the organisation aims to inspire and empower regenerative viticulture. The aim is for 10% of global vineyards by area to be regenerative by 2035. Currently, only California has defined what regenerative agriculture is, and practices may vary around the world. However, the 10% would include certification of some kind in addition to other metrics being developed. There are currently a range of regenerative viticulture certification bodies - <https://regenerativeviticulture.org/resources/toolkit/certification/> . In the UK, only Hebron in Wales and Penn Croft in Hampshire have certification through A Greener World. In addition, the Leckford Estate has certification through Regenified.

Regenerative Viticulture is supported through a network of vineyards, events and resources such as the Regenerative Viticulture Toolkit. One Block Challenge encourages vineyards to trial regenerative techniques on a small part of their land with support from the community. The initiatives are aimed at vineyards of all sizes.

What would regenerative viticulture look like in the Kent Downs

There are not prescriptions for regenerative viticulture, but the things it may include in the Kent Downs are:

- a. Permanent ground cover year round
- b. Intentional decision making about ground cover to build soil health
- c. Soil monitoring
- d. Eliminate herbicide or till under vines. - ideally with low growing plants outcompeting grasses and other taller plants
- e. Higher trellis wire to help allow grazing for more of the year
- f. Move away from synthetic fertilisers
- g. Use compost tea if possible or other organic material including returning prunings to soil. Can be directed under the vine where possible
- h. Not necessarily organic but moving in that direction
- i. Address compaction with deep rooting plants or possibly subsoiling (though as shallow as possible)

One of the barriers to doing many of these things is machinery. Specifically:

- Machinery to direct drill
- Side discharge mowers
- Side discharge spreader

- Double sided strimmer attachment on tractor to help mow under vines – and only requires passes on every other row

One of the most common discussion themes for the One Block Challenge WhatsApp group has been under vine management

Other certification

Certification in the UK is evolving as it is unclear exactly what the consumer is looking for. The multiple retailers may start to require certification in due course. Regenerative certification sits well alongside Sustainable Wine GB and the LEAF Marque but there is always the risk of certification fatigue.

What are the gaps in sustainable viticulture in England and what support is needed?

- Generally, vineyard managers know what to do to be more sustainable but need to make a leap. Support is required to help people leap.
- Vineyards may need to be incentivised to make the leap as viticulture is not a hugely profitable industry
- Making equipment available could be a game changer and taking time to talk to people
- Having agronomists who are knowledgeable about regenerative methods and not tied to synthetic chemicals
- Soil testing as standard needs to happen. Baselineing is particularly important
- Advice on ground cover
- Good consultant support for regenerative viticulture.

Prof. Duncan Westbury – Royal Agricultural University

Duncan Westbury – Dean – Land and Property Management

Research background

Duncan is a plant ecologist by training and has carried out research work in agri-environment schemes to deliver sustainable approaches to food production, in arable, livestock, and fruit crops. The focus has been on ecosystem services such as pollination and pest regulation that can support production. There is an opportunity to get ahead of the game in viticulture as the industry is still establishing itself in the UK.

Ecosystem Service Delivery Research in vineyards

Duncan's research into viticulture has focused on ways to reduce chemical inputs by providing wildflower habitat for natural enemies of pests in the alleyways of vineyards. Field studies are taking place in Sussex in partnership with the University of Worcester and the Bumblebee Conservation Trust. As well as studying biodiversity benefits above ground, the work is also investigating how wildflower strips can enhance soil health, including the mycorrhizal community.

The research has focused on implementing recommendations from his recent study in British cherry orchards, which trialled the use of wildflower strips that were maintained at a height of 20cm over the growing season. This is considered to be compatible with both the economics of wine grape production and stewardship options.

Following regular cutting in year one after the sowing of a perennial wildflower mix in alternate rows of a vineyard/orchard, in subsequent years the wildflower sward was cut approximately every four weeks during the growing season back to a height of 20cm. This enables plants to flower without compromising productivity.

Prior to sowing, it is important to note that the seed bed can be created without using herbicides, instead, a much more environmentally friendly approach is used; a two-pass cultivation to a depth of around 5cm. An interval of approximately two weeks is left between cultivations, with the seed being broadcast as soon as possible after the second cultivation. Regular cutting through the first season is needed before establishing the maintenance cuts in year two. Every five years, scarification to create approximately 60% disturbance is required to create gaps in the sward for the next generation of wildflowers.

A seed mix may not be needed if the initial plant diversity within the alleyways is already good. Growers simply need to adjust their cutting regimes. This is very much dependent upon soil type, previous land use etc.

This work is summarised in a document "Perennial Crop Wildflower Areas - Grower Guidance" that can be provided by the Kent Downs National Landscape upon request.

Priorities for Kent Vineyards

Alternate alleyway strips of wildflowers is considered to be the most important single action to support biodiversity and the services provided within vineyards.

Wildflower strips in vineyard © Duncan Westbury



Nikki Gammans – Bumblebee Conservation Trust

Nikki Gammans – Conservation Projects Manager, SE England – Bumblebee Conservation Trust

Involvement with vineyards to date

The conservation team has had relatively little direct involvement with vineyards up until now. They are currently in touch with a large vineyard just outside the Kent Downs but are aware of the awareness and willingness to engage of the viticulture sector. Consequently, the organisation is keen to work more in this area.

How can vineyards be made more favourable for bumblebees in particular and hymenoptera in general

A range of possible approaches were discussed including:

- The use of pollinator strips within vineyards, either between vines, in headlands or in other places within the vineyard. Discussions included the kind of species that can tolerate the need for a generally short sward, the use of nitrogen fixing legumes as well as the impact that regularly cutting flowering plants might have on their ability to produce nectar.
- Headlands and other areas where pollinators could be grown without the need to retain a short sward or be impacted by chemicals as much may be preferable. Maintaining flowers throughout the season a high priority. Insects are emerging from hibernation earlier in the year.
- Nectar rich hedgerows with flowering throughout the season are a high priority. Developing a species mix that flowers through the year, contains dead end hosts and does not encourage vine pests is key.
- Maintaining bare earth for solitary, burrowing insects that can be exposed and/or cleared every winter. South facing banks are particularly important and dandelions are an especially important early flowering plant. Solitary bee hotels can complement this approach.
- Longer grass where small mammals are encouraged and will be beneficial for nesting and hibernating insects, particularly those that may help with Integrated Pest Management. Tussocky grass is very important.
- Waterways and ditches should be encouraged. Beetle banks and scrapes can all assist bumblebees and other hymenoptera. These can potentially be funded by Countryside Stewardship, SFI and or Farming in Protected Landscape. Bumblebee Conservation Trust can write letters of support if rare species are present nearby.
- A mosaic of habitats is preferred.
- Surveying in general, but particularly where interventions are being trialled will help to understand the impact of vineyards. As well as the traditional transect surveys of the Beewalk - <https://beewalk.org.uk/> there is also the easier and quicker to do POMS Fit Counts surveys that require fewer bee identification skills - <https://ukpoms.org.uk/fit-counts>

Priorities for future vineyard work

Although all parts of the Kent Downs are important, priority areas for bee related interventions could be the coasts and areas near existing records of rare species.

David Thring – Elvis and Kresse

David Thring – Vineyard Manager – Elvis and Kresse

Overview of the vineyard

The vineyard is run with sustainability and regeneration at the heart of decision making. David's background is as a soil biologist, and these skills have been applied to land management at the vineyard. The vineyard is around 4.25 hectares in size, and the total site size is 6.5 hectares. This also includes the headquarters of the Elvis and Kresse business, a pond system and an area of land set aside for wildlife, at the bottom of the site that gently dips from north-west to south east. It was planted in spring 2022 and will produce both red and white still wines.

Features of the vineyard and approach to viticulture

- The aim was to create a woodland edge effect where the vines are planted. Companion planting of a range of different plants has taken place under the vine including other fruits.
- Vine rows are three metres apart.
- The trellis used raises the grapes to around 135cm. Both this and the wide row width aim to allow air to circulate and reduce the need to control mildew.
- Applications to vines include Trichoderma (a fungi) which can improve plant nutrient uptake and resistance to disease.
- Compost teas and manure are occasionally applied directly to the soil to add nutrients.
- The soil was not tilled before planting and planting was done using augers. This is significant as the land was grazed before it became a vineyard and was largely unimproved.
- Foliars are used to add nutrients to plants as and when needed.
- Plants and animals that are observed are recorded informally.

How could a sustainable viticulture project assist the vineyard

Would like funding for a pond at the bottom of the site and potentially other features added to the vineyard. Would also like to share ideas a little more with other vineyards.



Elvis and Kresse vineyard viewed from the north west

Will Moreno – Silverhand Estate

Will Moreno – Estate and Conservation Manager

What are the challenges at Silverhand Estate and what are the priorities

Currently, some of the biggest challenges in making viticulture sustainable at Silverhand Estate is a lack of staff and training courses. Hadlow College does not offer training making Plumpton College the only place regionally that offers viticulture training. There is a lot of demand for trained staff.

There is now a realisation that rows are too close together and that trellises need to be raised. Together, these things allow more air to circulate and reduce the amount of mildew problems. It also allows grazing to take place for a longer part of the year. Where planting is taking place now, the rows are further apart and trellises are being raised.

What support does Silverhand Estate need

Fencing and other grazing infrastructure is needed at Silverhand Estate to assist with grazing in vineyards.

Would like to increase the number of plant species between the rows of vines. Will was considering surveying each block and making a bespoke seed mix to reflect the local flora whilst using relatively low growing species. His ecologist has advised that using what is in the soil already may be more appropriate.

Water harvesting may become increasingly important as the climate dries.

An ability to generate electricity would really help the sustainability of the Silverhand Estate. This would mean either solar panels or ground source heat pumps. Solar panels could be put on existing buildings. Clarity over planning within the Kent Downs would also be useful.

What has worked well up until now

Pasture for Life accreditation has been really useful as there is support, workshops training etc. Is not that involved in the Sustainable Wines GB accreditation for Silverhand Estate. Organic accreditation through Demeter certification (biodynamic and organic) is more transactional and involves inspections rather than training and other support. The estate would like to expand the number of apprentices it takes on.

The one block challenge has been a good way to try new things and understand the benefits of regenerative techniques.

How should Kent Downs be supporting viticulture in Kent

Kent Downs could act as a local hub for one of the accreditation schemes, for example, Sustainable Wines GB. This would allow the Kent Downs badge to be put onto an accreditation scheme and give it a local slant.

Will is worried about the impact of conventional grape production and the amount of spraying that is done. There is also a concern that spray drift may impact adjacent areas. Glyphosate is still widespread and has a negative impact on nature. Anything that can be done to reduce the use of synthetic chemicals would be useful.

Promote some of the options in SFI that already exist and are open to vineyards. For example, there are options to pay for an Integrated Pest Management Plan and Nutrient Management Plan.

CIPM1 Assess integrated pest management and produce a plan

CNUM1 Assess nutrient management and produce a review report

Appendix III: Questionnaire and results

The questionnaire sent to viticulturists, vineyards, environmental groups, local authorities and other stakeholders.




Department
for Environment
Food & Rural Affairs

Kent Downs
National
Landscape

Farming in Protected Landscapes programme

Kent Downs Sustainable Viticulture

This scoping project aims to understand more about the viticulture sector in the Kent Downs National Landscape. This includes finding out:

- What measures the viticulture sector already takes to be sustainable
- How effective existing sustainability standards and incentives are
- What more the viticulture sector could or would like to be doing to improve sustainability
- What support is needed to improve sustainability standards and how the Kent Downs National Landscape team can help

[Switch accounts](#)



NOT SIGNED IN

* Indicates required question

Why are we asking these questions?

Workshops with viticulturists, viticulture consultants, environmental groups and other stakeholders as well as targeted one-to-one interviews have been taking place in December 2025 and January and February 2026. A shortlist of proposed actions to support sustainable viticulture have been drafted based on what people have told us. We now need your help to let us know what you think of them.

Please take a few minutes to fill in this survey. All data will be used to inform our final recommendations. No personal details will be passed on to third parties and it is not a requirement for you to provide any personal data when you fill in this survey.

How would you describe yourself? *

☐ A vineyard owner or manager
☐ A viticultural consultant
☐ An academic
☐ I work in nature conservation
☐ Local authority staff/councillor
☐ Other: _____

How is your work related to vineyards

- ☐ Research
- ☐ Viticulture advice and support
- ☐ Biodiversity advice and support
- ☐ Certification and accreditation
- ☐ Planning and development
- ☐ Other: _____

Do you belong to any certification schemes?

Please tick all that apply

- ☐ Sustainable Wines of Great Britain
- ☐ LEAF
- ☐ Red Tractor
- ☐ Soil Association Organic
- ☐ Biodynamic
- ☐ Other: _____

Do you currently receive payments through Countryside Stewardship or Sustainable Farming Incentive?

- ☐ Yes
- ☐ No

Vineyards

What is the name of your vineyard (optional)

Your answer _____

How would you describe yourself?

- ☐ I grow grapes as part of a wider farm business
- ☐ Grapes are the only crop that I grow
- ☐ I do not grow grapes but am considering it

If you do grow grapes, how many hectares of your land is dedicated to vineyards?

- ☐ Less than 1 hectare
- ☐ 1 hectare or more but less than 5 hectares
- ☐ 5 hectares or more but less than 20 hectares
- ☐ 20 hectares or more
- ☐ Not applicable

Do you belong to any certification schemes?

Please tick all that apply

- ☐ Sustainable Wines of Great Britain
- ☐ LEAF
- ☐ Red Tractor
- ☐ Soil Association Organic
- ☐ Biodynamic
- ☐ Other: _____

Do you currently receive payments through Countryside Stewardship or Sustainable Farming Incentive?

- ☐ Yes
- ☐ No

Academia

Which institution do you represent (optional)

Your answer

What is the focus of your research?

Your answer

Is there an area of research you consider to be most important with regard to sustainable viticulture?

Your answer

How would your institution most like to be involved in future Kent Downs sustainable viticulture initiatives?

Your answer

Planning

Which local authority do you represent (optional)

Your answer

What do you consider to be the most important planning issues around viticulture and associated infrastructure?

Your answer

What are the most important things that the Kent Downs can do to support viticulture?

Which areas should the Kent Downs look to focus its work with the viticulture sector in the next few years

Guidance and advice (choose as many as you like)

- ☐ Viticulture farm clusters
- ☐ Vineyard support officers (impartial advice to enhance landscape and biodiversity)
- ☐ Develop best practice guidance and training for Kent Downs vineyards that includes ways to reduce impacts of pest species
- ☐ Develop demonstration vineyards (best practice examples)
- ☐ Vineyard design guidance
- ☐ Support with land management plans
- ☐ Specialist support for small vineyards
- ☐ Create advice that complements certification schemes
- ☐ Support access to grant funding
- ☐ Integrated Pest Management advice
- ☐ Guidance on water management
- ☐ Guidance on soil management
- ☐ Recommendations for hedgerow species
- ☐ Recommendations for cover crop choice (soil health, vine maintenance and biodiversity)

Initiatives for biodiversity (choose as many as you like)

- ☐ Creating biodiversity buffers around vineyards connecting to other high quality habitats
- ☐ Focus on nature recovery rather than features such as bird boxes and bat boxes
- ☐ Installing biodiversity features such as bird boxes and bat boxes
- ☐ Soil regeneration practices (permanent cover, grazing, applications etc.)
- ☐ Native species wind breaks, hedges and trees
- ☐ Promote local chestnut for posts
- ☐ Enhancing biodiversity adjacent to vineyards
- ☐ Promoting a part of the vineyard devoted to nature
- ☐ Identify quick biodiversity wins for vineyards
- ☐ Develop a wildflower seed mix or mixes for Kent Downs vineyards (between vines and for other areas)
- ☐ Support for passive biodiversity monitoring (e.g. acoustic, eDNA)
- ☐ Work with Defra to refine Countryside Stewardship and Sustainable Finance Incentive for vineyards
- ☐ Water capture and quality initiatives
- ☐ Link initiatives to Kent's Local Nature Recovery Strategy

Research (choose as many as you like)

- ☐ Support for interdisciplinary research
- ☐ Measure the impact of land sharing and land sparing initiatives
- ☐ Research and develop a Kent Downs seed mix for vineyards
- ☐ Better understand impact of agri-chemicals on biodiversity
- ☐ Understand water use and impact of chemicals on groundwater
- ☐ Understand in-vineyard opportunities where vines are not part of the wider farm
- ☐ Specialist support for small vineyards
- ☐ Create an accessible literature review and identify gaps in research
- ☐ Research into Spotted Winged Drosophila control and efficacy of dead end hosts
- ☐ Help vineyards collect consistent data relating to biodiversity initiatives

Involving people (choose as many as you like)

- ☐ Collaborate with Plumpton College
- ☐ Interpretation about sustainable practices in publicly accessible places
- ☐ Educational access
- ☐ Permissive access (in addition to public rights of way)
- ☐ Health and wellbeing activities
- ☐ Help the public better understand how viticulture can conserve and enhance landscape character
- ☐ Work with Defra/Natural England to refine the agri-environment offer for viticulture
- ☐ Develop off-site interactive interpretation and learning

Branding and marketing (choose as many as you like)

- ☐ Use development of Protected Designation of Origin (PDO) to raise sustainable standards and brand recognition in Kent Downs viticulture
- ☐ Market Kent Downs wines using examples of best practice in sustainable viticulture
- ☐ Link sustainable tourism offer to sustainable practices in vineyards
- ☐ Understand and meet consumer expectations for sustainability in wine making
- ☐ Provide training in marketing through sustainable practices
- ☐ A sustainable viticulture farming award

Machinery and technology (choose as many as you like)

- ☐ Support to adopt technological advances
- ☐ Promote adoption of technology (including AI) for disease prediction
- ☐ Machinery sharing for small vineyards
- ☐ Provide grants for innovative machinery and techniques

Planning (choose as many as you like)

- ☐ Spatial development strategy for a landscape with vineyards (in the light of current exponential growth)
- ☐ Kent Downs planning guidance for viticulture and associated infrastructure
- ☐ Better understand the impact of increased traffic in rural areas around vineyards
- ☐ Support communication between land managers, regulators, environmentalists and other stakeholders
- ☐ Address light pollution and impact on insects, bats and character of rural areas.

How would you like to be involved

Would you like to be involved in any of the following initiatives if they were developed by the Kent Downs National Landscape? (choose as many as you like)

- ☐ Guidance and advice
- ☐ Initiatives for biodiversity
- ☐ Research
- ☐ Involving people
- ☐ Branding and marketing
- ☐ Machinery and technology

Are there any specific ways that you or your organisation would like to be involved or could offer assistance or collaboration in future projects? (please let us know who you are if this is the case)

Your answer

...and finally

Your chance to let us know anything else.

Thank you for taking the time to fill in this questionnaire.

Do you have any comments about any of the questions you have been asked or any broader comments about how viticulture can be supported to be more sustainable?

Your answer

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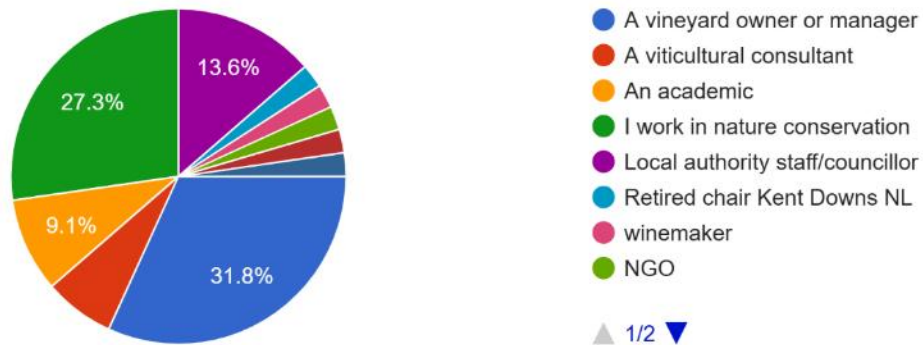
Questionnaire Results

The following are all of the results from the questionnaire, with the exception of any data that might lead to the identification of individuals who responded.

How would you describe yourself? (all answered)

How would you describe yourself?

44 responses



How is your work related to vineyards (all but vineyards answer)

How is your work related to vineyards

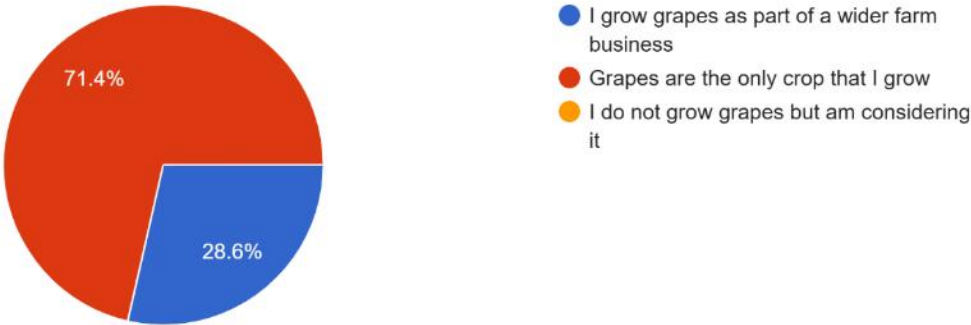
26 responses



How would you describe yourself (vineyards only)

How would you describe yourself?

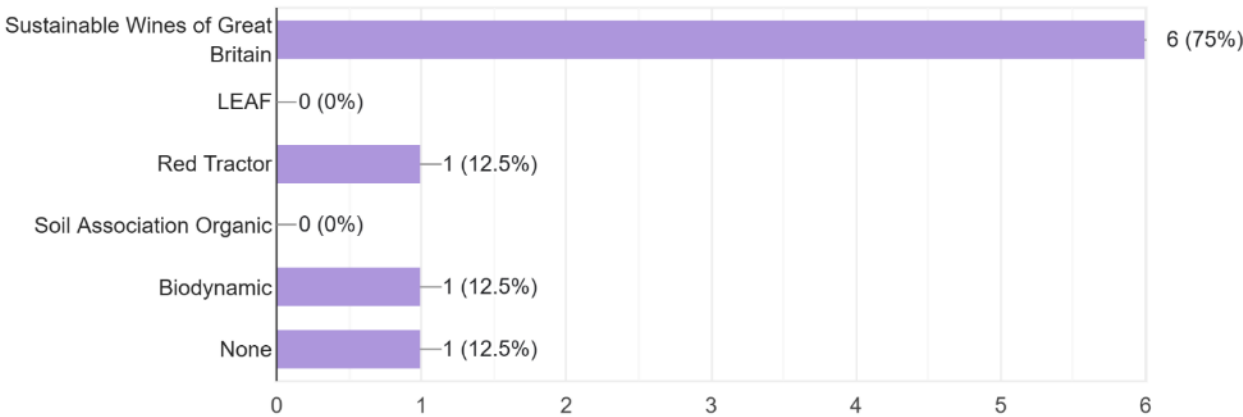
14 responses



Do you belong to any certification schemes (vineyards only)

Do you belong to any certification schemes?

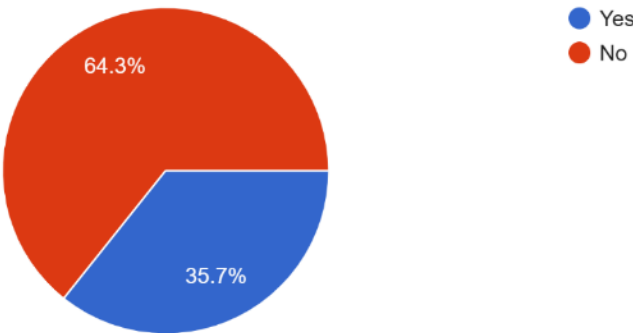
8 responses



Do you currently receive any payments through Countryside Stewardship or SFI? (vineyards only)

Do you currently receive payments through Countryside Stewardship or Sustainable Farming Incentive?

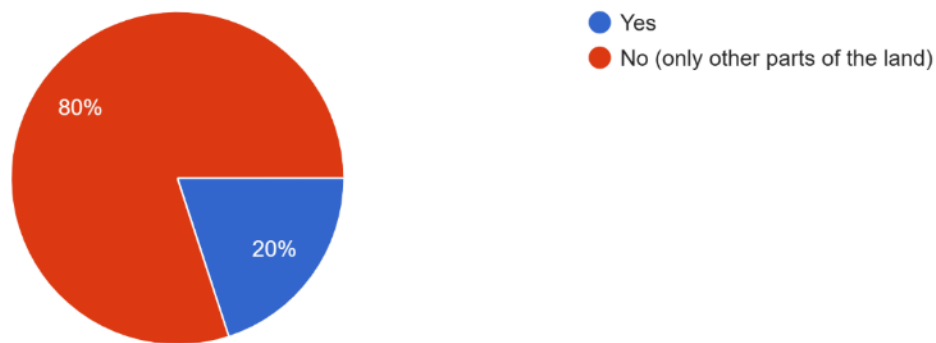
14 responses



Does your CS or SFI payment cover the vineyard? (vineyards only)

Does your CS or SFI payment cover the vineyard

5 responses



What is the focus of your research? (researchers only)

- Viticulture
- Agricultural/horticultural entomology - pest and beneficial insect management on fruit farms including vineyards
- SMART viticulture
- Nature recovery in England; sustainable viticulture

Is there an area of research you consider to be most important with regard to sustainable viticulture? (researchers only)

Lowering production costs

Whole ecosystem approach - how the management of the crop and non-crop areas impacts wider biodiversity and ecosystem services on-farm and as part of wider landscape.

Yield optimisation and reduction of pest and diseases

Impact of different management practices on the production and surrounding nature / biodiversity; effectiveness of nature-friendly practices, and especially those associated with payment rewards, on surrounding biodiversity and production; social research across viticultural landscapes (with regards to land owners and local communities)

How would your institution most like to be involved in future Kent Downs sustainable viticulture initiatives? (researchers only)

Academic role

Subject to funding: research and outreach to growers about biodiversity-boosting measures on vineyards, integrated pest management, beneficial insects like natural enemies, above- and belowground invertebrate activity on vineyards

To be included on any forum or committee, work with vineyards for collaborative research

Yes

What do you consider to be the most important planning issues around viticulture and associated infrastructure? (local authorities only)

Linked impacts upon landscape and biodiversity.

Public awareness and understanding

Permitted Development Rights, impact on landscape, landscape setting, biodiversity and highways

Permitted development, leading to unchecked sprawl and some inappropriate development

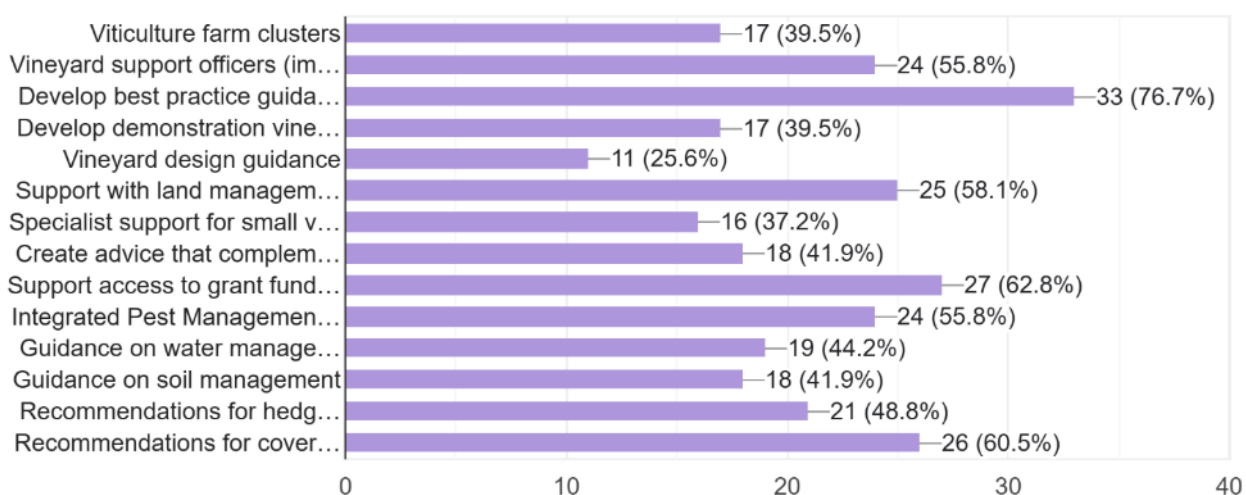
The positive contribution it can make to the rural economy, local tourism and inward investment

Impact on biodiversity through the intensive use of pesticides, visual impact of infrastructure in the Kent Downs National Landscape (KDNL), increased travel/ journeys/ traffic in the KDNL, quality of design of associated infrastructure, impact on local amenity or the character, appearance or nature conservation value of the rural landscape.

What are the most important things that the Kent Downs National Landscape Team can do to support viticulture?

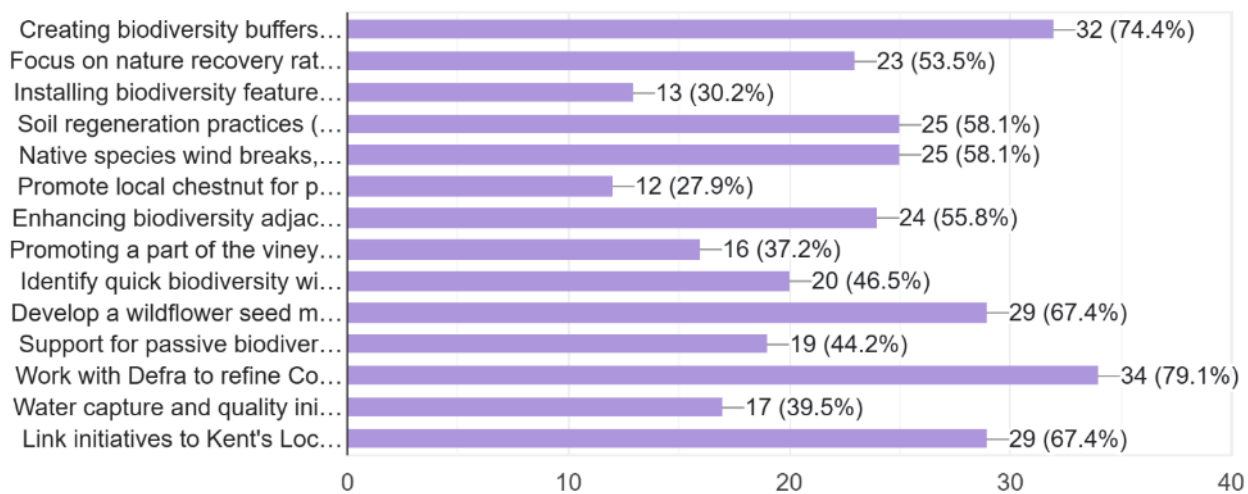
Guidance and advice (choose as many as you like)

43 responses



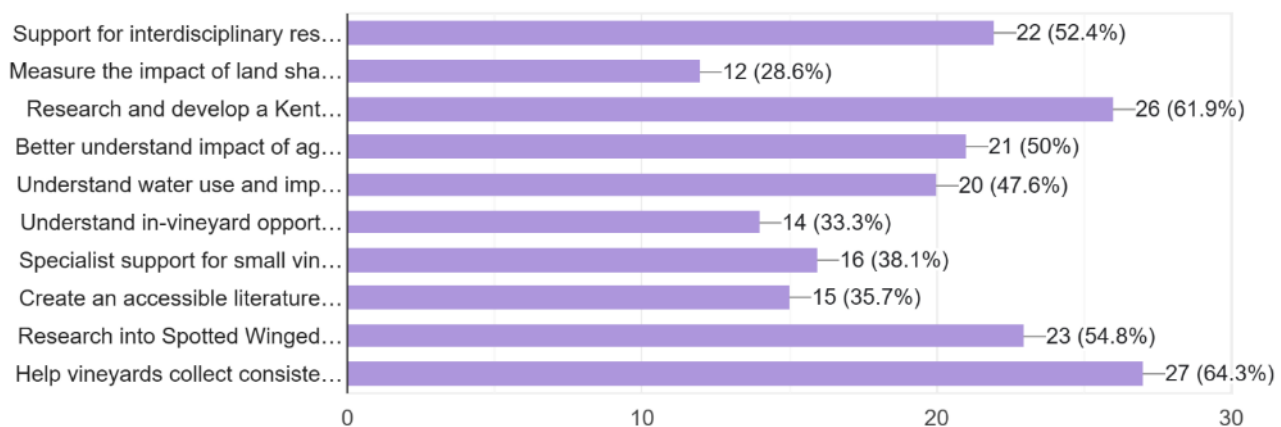
Initiatives for biodiversity (choose as many as you like)

43 responses



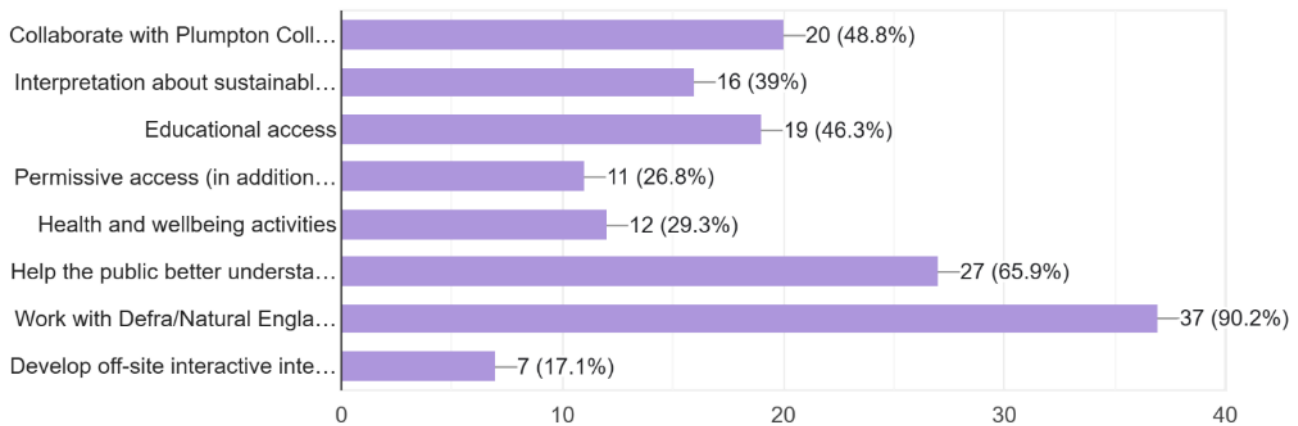
Research (choose as many as you like)

42 responses



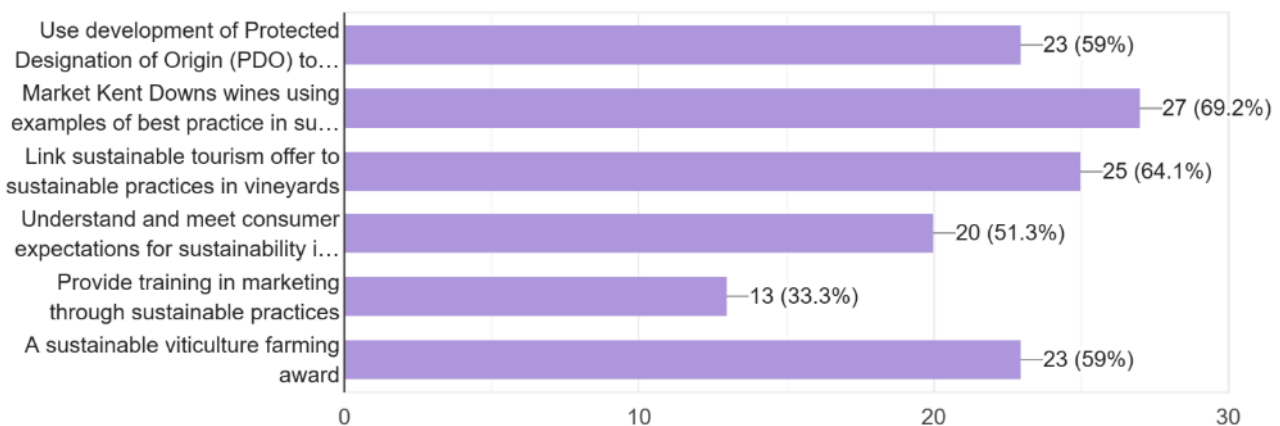
Involving people (choose as many as you like)

41 responses



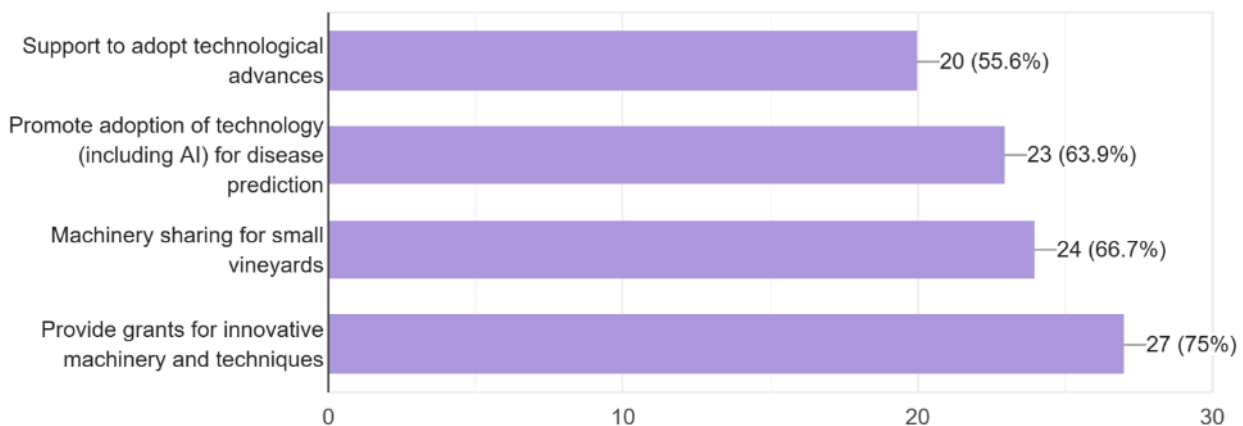
Branding and marketing (choose as many as you like)

39 responses



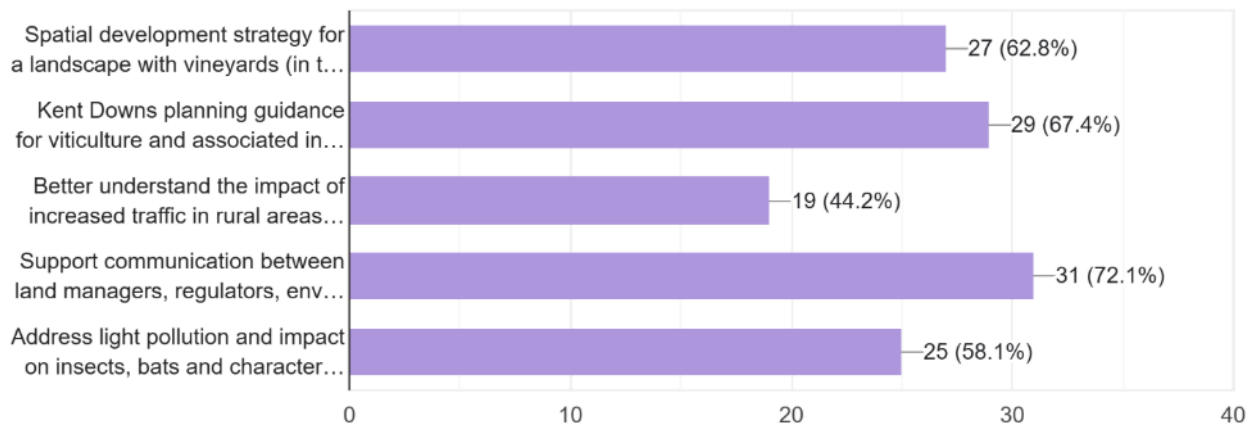
Machinery and technology (choose as many as you like)

36 responses



Planning (choose as many as you like)

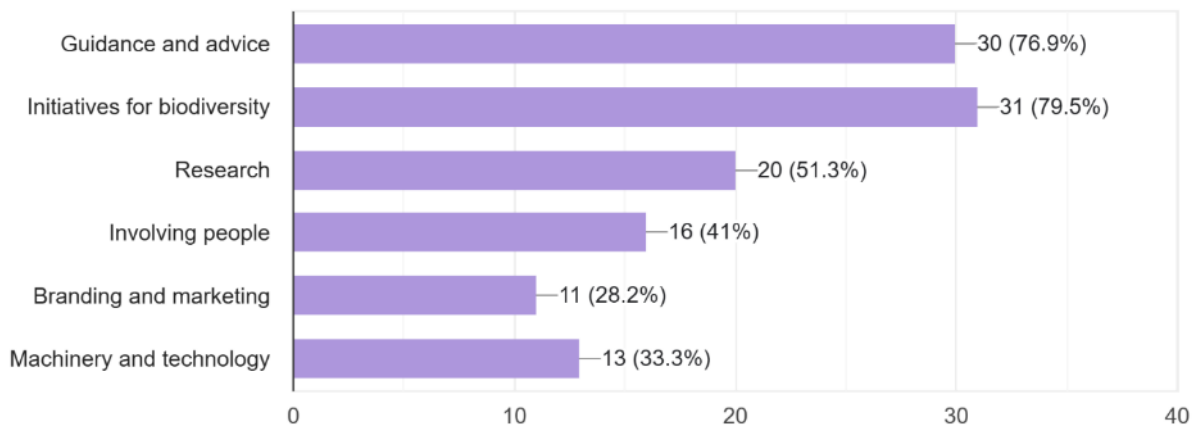
43 responses



How would you like to be involved?

Would you like to be involved in any of the following initiatives if they were developed by the Kent Downs National Landscape? (choose as many as you like)

39 responses



Do you have any comments about any of the questions you have been asked or any broader comments about how viticulture can be supported to be more sustainable?

Virtually all of the ideas/options would be amazing. On the whole, I tried to choose options where I think they're not already being provided elsewhere. There's no point reinventing the wheel and there's a lot of advice already out there for vineyards through academic institutions (Plumpton, NIAB etc), industry bodies (Wine GB) and consultants/agronomists. So if we want advice on the more generic aspects of vineyard management (e.g. soil health), we already have places we can go. If Kent Downs is going to invest resources, it should focus on areas that are specific to this region, enhancing what makes this area special and bringing opportunities to the region (e.g. sustainable tourism, which could bring together accommodation and other hospitality options too).

There were also quite a few points about developing Kent Downs seed mixes. I'd have thought even if you seed these mixes, they will eventually naturalise to whatever mix suits the soil and area of the vineyard? Certainly we have too much fertility to support a native mix that would be found higher up the escarpment, even from the same village. We'd have to scrape top soil or at least start with measures to weaken the grass sward before seeding - meantime we're introducing more fertility whenever we feed the vines.

A very useful first session

Subject to successful funding, it would be fantastic to have a meeting with you in July/ August 2026 when we will be planning activities and building the infrastructure for the Network. We are very keen to share learning and resources and to avoid duplication.

If looking attractive is a major goal, I, personally, have a niggling aesthetic yearning - I'd be very happy to help in the area of making vineyards fit better into a landscape than they may do at present.

Some of the options to increase biodiversity within vineyards should not be adopted until we can be clear that vineyards are not a sink for biodiversity (or in what circumstances this applies) - the last thing we want to do is attract species that are then killed by chemicals and intensive farming techniques - the evidence needs to be there to ensure that biodiversity can be maintained and supported in vineyard environments, or we could be making a bad situation even worse. LOVE the ideas around branding and marketing.

Research link to NIAB

I'm really pleased to see that the Kent Downs is actively looking to support the viticulture sector as having been to a couple JAC meetings, each time I have thought that some of the Cllrs in attendance came across quite 'anti' vineyards and vines (mainly, but not exclusively) from a landscape perspective, and this was always confusing given the role vineyards play in Kent's rural (and wider) economy.

I believe educational establishments in and around Kent are completely ignorant to the needs (and ultimate employment opportunities) for better education, training, academic courses based on viticulture and viniculture. Why is it always Plumpton College, as excellent as it must be, is the only centre for this sector in the UK, when Kent has the largest area and production of wine in the UK?

No comments at this time

Please avoid deliberate planting of seed mixes. I realise that this is well-intentioned, but natural regeneration of disturbed-ground and permanent grassland habitats is likely to be more beneficial for biodiversity. At most, local green hay should be used. Also, the Local Nature Recovery Strategy should be used as the primary guide for local action.

Poorly devised form. I am not sure you will get accurate data from this.

Good to have a wide ranging base of questions. The word "Sustainable " and its meaning is however rightfully evolving - that has key relevance to practical and measurable thinking for the future.

Quite happy really, but interested to see what happens

Many vineyards continue to use things like Glyphosate and dangerous pesticides - very few (because the marketing is funded by the producers) are actually aware of the detrimental effects - e.g. that glyphosate kills X species of worms. A key element must be to highlight the impacts on the environment and human/ animal health

Pressure on Plumpton College to give viticulture students basic training on biodiversity positive practices and ecological monitoring.

None

This is very thorough but big overlap with SWGB (Wine GB)

On-farm/vineyard advice for land management and habitat creation beneficial to Turtle Doves and other farmland bird species; consultation on seed mixes that will help support the recovery of Turtle Doves in the Kent Downs area (Kent being the stronghold for the species in England and the soils here being exceptionally good for growing the plants that they need to breed and produce the next generation).

Similar needs, focus and projects are underway at various stages of development around the world. Unless you are multilingual or have wide ranging contact with the international wine business, you will not be perhaps aware of these. There are many common challenges shared across the wine world. Unfortunately thinking in 'Silos' has de-railed and misdirected many initiatives both in the UK (and other regions). Additionally, this is not a "just Viticulture " challenge. Integration in a large holistic way of many agricultural and cultural initiatives will have a useful compounding effect if considered.

This is important because it is growing land use change - that now includes the fast growth of viticulture - that is impacting on the Kent Downs area (and the county they return to each year) that has been their home for thousands of years. Given the extraordinary revival of their numbers in Western Europe over the past 4 years, we need to make sure we are 'Turtle Dove ready' to have on offer what they need to make it worth their while to cross the English Channel. And so too, Nightingales and a variety of other migratory (and farmland) bird species that act as natural pest controllers, pollinators and seed dispersers which help maintain ecosystem balance and raise biodiversity.

Many thanks,