

# DEFRA WINE PDO APPLICATION

MEMBER STATE - UNITED KINGDOM

## RESPONSIBLE DEPARTMENT

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This single document sets out the main elements of the product specification for information purposes.

**Protected Name: SUSSEX**

**Demarcation: WEST and EAST SUSSEX**

### 1. Details of Protection

- a) Name to be registered: **SUSSEX**
- b) Equivalent name(s): **SUSSEX SPARKLING, SUSSEX STILL, SUSSEX ORIGIN.**
- c) Geographic indication type: **PDO**

### 2. Applicant: Sussex Wine Producers

Name of Spokesperson: Mark Driver

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### 3. Demarcated Area – East and West Sussex

The Kingdom of Sussex was established in Saxon times around 477AD and is one of England's oldest counties. In 1832 it was divided into two districts, West and East, under the Archdeaconries of Chichester and Lewes. As a Kingdom it was, at one time, quite isolated from the rest of England by its geography. Before drainage was introduced it was separated from most of Hampshire to the west by the swamps around Havant and Hayling Island, and from Kent, in the east, by the Romney Marsh, and from the north by the thick forest of the Weald.

The current administrative boundary of West Sussex rises up from a point east of the town of Emsworth, just north of Hayling Island, and passes to the east of Petersfield and south of Haslemere. It then extends east to encompass Crawley and East Grinstead. East Sussex then extends to the south of Royal Tunbridge Wells but includes Rye and borders the Romney marsh to the north of Dungeness. This boundary is shown in the map below and includes the vast majority of the South Downs National Park.

**The boundaries of East and West Sussex**

Under EU PDO regulations all grapes used for Sussex wine must come from vineyards located inside the current boundaries for East and West Sussex\* and all winemaking, vinification, on-lees storage and finishing processes must be carried out within the same demarcated boundaries as shown above. Note: \* As these are administrative demarcations the applicant will reconsider the boundaries of the PDO area in the light of any legislative changes.

#### **4. Link to the Geographic Area**

The South Downs are now the England's largest National Park. They rise out of the sea at Beachy Head in East Sussex, run through West Sussex and on into Hampshire, dominating the landscape of the region's southern boundary with the English Channel. This cretaceous geological phenomenon is the result of aeons of years of the chalky deposits left by marine organisms over 100 million years ago. They were heaved upwards tectonically at the same time as the Alps to form this ridge of hills, the South Downs, that are in fact part of the same band of chalk, an extension of the Paris Basin, which runs through northern France, into southern England.

The majority of Sussex vineyards are based either on the chalk of the South Downs or on the greensands to the north. This major geological feature that runs through East and West Sussex has a significant calcareous influence on Sussex vineyards, providing ideal free draining soils for viticulture.

The effect of chalk in the soils of Sussex wine should not be underestimated. Chalk consists of calcite formed from the shells of these marine organisms, which are highly porous and act as a reservoir (storing an estimated 300-400 litres of water per m<sup>3</sup>) that provides the vines with a steady supply of water, even in the driest summers.

Chalk draws in water through capillary action. The effort required to tap into this water supply puts the vines under just enough water stress in the growing season to achieve that delicate balance of ripeness, acidity and berry aroma potential.

Sussex also benefits from its high latitude, which gives the opportunity to have a longer growing season, enabling grapes to mature to full phenolic ripeness, and the wide diurnal temperature range providing ideal growing conditions for Traditional Method quality sparkling and still wine production.

Sussex is also recognised as one of the driest and warmest areas in England, classified as having a 'semi-continental climate', with average rainfall typically between 600-850mm per annum. Areas of Sussex still hold records for the longest sunshine hours in the UK, with Growing Degree Days (GDDs) (as defined by Coombe and Dry 2004), during the growing season of April to October, of around 970.

These inherent natural factors, in particular the calcareous soils, an exceptional sunshine record and the moderate annual rainfall of 600-850mm, make Sussex an ideal region to produce grapes of outstanding quality for wine and determine the specific quality and characteristics of the wine produced.

#### **5. Human Factors**

Winemaking skills in Sussex have developed rapidly over recent years, bolstered by the expansion of Plumpton College, an associate college of the University of Brighton that is a centre of excellence for wine education located in Sussex. It is one of the only wine schools based in a cool climate wine region with a research department offering a bachelor and masters degree programme in Oenology.

Sussex wine producers, have already won some of the top accolades in the world, winning 'Best Sparkling Wine' in worldwide international competitions no fewer than eight times. In the recent IWC 2015 awards, Sussex wine producers were awarded six gold medals for sparkling wines. In the 2015 IWSC competition a Sussex still producer was awarded a gold medal, the first ever awarded to any English still wine producer. The establishment of a Sussex wine PDO will ensure that Sussex wines will continue to be considered amongst the very best in the world, reflecting the efforts of Sussex wine

producers, who maintain very high standards of winemaking in East and West Sussex, and will ensure that they are protected from unfair competition and that consumers are protected from misrepresentation.

To this end, the Sussex PDO will introduce a stricter set of rules regarding both viticulture and oenology, including: limiting the grape varieties that can be used, demanding higher natural alcohol levels, as well as other higher analytical standards. Sussex wines will also have to pass a qualitative assessment and the PDO stipulates longer bottle ageing for Sussex sparkling wine.

These rules are detailed below and reflect the practices that are currently adopted by Sussex winemakers.

The aim of the Sussex PDO is to act as a benchmark denoting high quality still and sparkling wine.

## **6. Product specification: (In two sections – Sparkling and Still)**

### **Part 1 - Sussex Sparkling Wine**

#### **Product Details**

**a) Category:**

Traditional Method Quality Sparkling Wine (as defined by EU regulation 1308/2013 and Commission Regulation EC 606/2009 and EC 607/2009)

**b) Description:**

Sussex sparkling is a Traditional Method quality sparkling white or rosé wine made from classic sparkling wine grape varieties grown within the administrative boundaries of the counties of East and West Sussex (detailed in section 3).

**c) Analytical characteristics:**

- i) Actual Alcoholic Strengths: a minimum of 11%
- ii) Reducing Sugars: no set parameters
- iii) Total Acidity: a minimum of 6 grams per litre expressed as tartaric acid.
- iv) Volatile Acidity: a maximum of 0.5 grams per litre (expressed as acetic acid) for each bottled white or rosé wine.
- v) Total Sulphur Dioxide: the maximum is 150 mg per litre.
- vi) Copper: a maximum of 0.3mg/l
- vii) Iron: a maximum of 8mg/l
- viii) Stability: no crystal deposits when held at -2°C for 36 hours. The finished wine must remain unchanged in appearance after being held at 70°C for 30 minutes and subsequently cooled.
- ix) Pressure: not less than 3.5 bars when measured at 20°C\*.

Note \*: Half-bottle to Magnum (1.5 litres) the secondary fermentation must take place in the same bottle and same pressure rules apply. Smaller and larger bottles must meet EU requirements for Traditional Method quality sparkling wine.

**d) Organoleptic characteristics:**

**Visual appearance:** For chardonnay dominant blends, the colour can range from light lemon or pale golden, through to deep golden hues, depending on the age of the wine. For pinot blends the colour will range from pale gold or honey, to deep golden hues that are more common, depending on the age of the wine. Rosé wines range from a blush (rose petal) hue to a stronger salmon pink, sometimes with a slight golden hue for wines with more age.

All the wines will be clear and free from suspended sediment.

**Aroma and Taste:** The cooler climate and longer growing season gives rise to crisp lemon citrus and green apple acidity from the chardonnays, while the pinot's can have a more earthy mix of red berry and baked apple flavours, producing wines that are clean and fresh, yet have depth and are complex, with a richness in character. The longer on-lees bottle aging produces wines with developed autolytic notes of brioche, fresh toast, melon, baked brioche and honey aromas on the nose and palate.

All the wines will demonstrate a fine and persistent mousse, synonymous with 'Traditional Method' sparkling wine.

#### **e) Organoleptic testing:**

**Prior to bottling:** Each blended wine, or cuvée, of Sussex sparkling wine must be approved by an accredited organization (defined in section 10 below) prior to bottling. Two sample bottles of this wine will be kept for comparison to the finished wine as the need arises. The winemaker must keep records and must be in possession of the laboratory analysis for each day's bottling.

**Post-disgorgement:** Prior to release, all Sussex sparkling wines must be tested by the Scheme Manager (Campden BRI), who will carry out a qualitative assessment and laboratory test:

##### **1. Qualitative assessment:** (To be carried out by a panel, organised and certified as independent and competent by the Scheme Manager)

In order to pass quality status each wine must pass all 4 sections and achieve a grand total of 12 or more (out of 20).

- **Colour / Clarity** – score out of 3 (require a score of 2 or more to pass)
- **Bubble characteristics** including mousse / longevity – score out of 3 (2 to pass as above)
- **Nose** – score out of 7 (4 to pass)
- **Palate** including overall balance – score out of 7 (4 to pass)

##### **2. Laboratory analysis:**

All finished wine must have a laboratory analysis carried out by the Scheme Manager, that is detailed enough to show that the wine meets the required standards both of the Sussex sparkling wine PDO and the EU standards for Traditional Method Quality Sparkling Wine.

**Rejected wine:** A consultant, chosen by the winemaker, will review any wine rejected and remedial action may be suggested. If the wine is rejected for a second time the winery must not dispose of the wine (finished or unfinished) in any way that could jeopardise the Sussex sparkling wine name.

**Description and Labelling:** After a wine has been qualified as a Sussex sparkling wine it may use the name on the label. It will also be able to display the words "Traditional Method" (as detailed in 7 below).

#### **f) Oenological Practices:**

**Minimum permitted sugar levels at harvest:** Grapes will have a minimum natural alcohol level of 8% (62° Oeschle, 15.0 Brix).

Grapes between 7.5% - 8% potential alcohol can be used as part of reserve wines, to be blended with acceptable grapes, where in combination they would pass the minimum alcohol rules.

These limits are for the vineyard as a whole, not a single grape variety or pressing.

**Vintage declaration:** 85% of the grapes used to make Sussex sparkling wine must be of the nominated year of any vintage.

**Single variety wines:** Must contain at least 90% of the stated variety - Blanc de Blancs will contain at least 90% Chardonnay. Blanc de Noirs will similarly contain no less than 90% as a combination of either Pinot Noir and/or Pinot Meunier.

**Pressing:** The pressing will be of whole bunches only, except for Rosé, which may be made from wine made from partially crushed grapes.

- The maximum press pressure used is 1.6bar.
- The maximum yield is 66.67 l/100kg

**Maximum yield:** Of the must, before enrichment, is 80hl/ha measured on a vineyard basis.

**Vinification:** In addition to the rules specified above and otherwise by the Sussex Wine Producers (SWP), the wines must meet the minimum standards as specified by the EU legislation in force for Traditional Method Quality Sparkling Wine (as defined by EU regulation 1308/2013 and Commission Regulation EC 606/2009 and EC 607/2009).

**Malolactic fermentation:** Will be at the discretion of the winemaker.

**Tirage:** The total alcoholic strength of each cuvée intended for preparation shall not be less than 10% vol.

The addition of tirage liqueur may not cause an increase in the total alcoholic strength of the cuvée of more than 1.5% vol. This is measured by calculating the difference between the total alcoholic strength of the cuvée and the total alcoholic strength of the Sussex sparkling wine before any expedition liqueur is added.

The tirage liqueur used for the production of Sussex sparkling wine may contain only:

- Sucrose
- Concentrated grape must
- Rectified concentrated grape must (RCM)
- Grape must or partially fermented grape must
- Wine

Any wine used must be sourced from the same Protected Designated Origin as the cuvée to which it is added.

Tirage may be done by the winery or by an approved mobile bottling unit.

**Bottle:** The choice of bottle is at the discretion of the winery (but must comply with EU regulations).

Note: At bottling, 2 bottles of cuvée, plus 2 bottles of each separate days bottling must be kept and indelibly marked for traceability.

**Maturation:** The minimum time a Sussex sparkling wine must stay in the bottle prior to release is 15 months\*.

(Note\*: Of this time there must be a minimum of 12 months on tirage lees, in which case the wine must have a further 3 months post disgorgement time to make up the 15 months.)

**Disgorgement:** The practice used for disgorgement must be carried out in accordance with EU Regulations that fulfils the Traditional Method quality sparkling wine definition.

**Expedition Liqueur:** is at the discretion of the winery within the EU regulations then in force. Any must or wine used must be sourced from the same Protected Designated Origin as the cuvée to which it is added.

## **g) Viticulture Practices:**

### **Permitted Grape Vine Varieties:**

Sussex sparkling wine shall be made principally from the following grape varieties:

- Chardonnay
- Pinot Noir
- Pinot Meunier

In addition Arbanne, Pinot Gris, Pinot Blanc, Petit Meslier and Pinot Noir Précoce may be used.

The vineyard owner must keep detailed records of yield and size of each parcel of vineyard land and make those available for inspection by Wine Standards and the Scheme Manager to confirm PDO status.

**Trellising and training:** Will be at the discretion of the vineyard owner.

**Harvest yields:** Under normal conditions the maximum harvest yield shall be 12 tonnes per hectare.

The absolute maximum harvest yield is 14.0 tonnes per hectare\*.

(Note\*: This level will only be authorized in exceptional circumstances, when it can be proved to the SWP that sugar levels, acidity and flavour are not being jeopardised, or in fact where conditions are such that reducing yield could be detrimental to the quality of the crop. Notification of such an increase will be sent by SWP to producers, the Scheme Manager and Wine Standards.)

**Hand harvesting:** All grapes must be hand harvested\*.

Note\*: Dispensation may be given by the SWP in exceptional years if machine harvesting is necessary to prevent rotten fruit from being left on the vine.

## **Part 2 – SUSSEX STILL WINE**

### **Product Details**

#### **a) Category:**

Quality Still wine (as defined by EU regulation 1308/2013)

#### **b) Description:**

Sussex still wine is made from grapes grown within the administrative boundaries of the counties of East and West Sussex and the wine is made and finished within the same boundaries as outlined in 3 above.

This unique terroir produces a wide selection of mainly light (low alcohol) still wines from crisp dry whites to fruity red wines and elegant rosé wines.

Sussex has a long history of growing grapes and the still wine producers within Sussex have won many awards for their still wines both in the UK and in international competitions.

#### **c) Oenological Practices:**

##### **Minimum natural alcoholic strength:**

The minimum natural alcoholic strength shall not be less than 8% (before enrichment – set out by EU rules).

### **Enrichment:**

The process of enrichment (in accordance with the procedures laid down in Annex VIII Part 1A of EU Regulation 1308/2013) shall not increase total alcoholic strength by more than 3% volume. In exceptional years, and at the discretion of the European Commission, enrichment up to 3.5% by volume may be authorised. The actual alcoholic strength of the finished enriched wine shall not be less than 10% volume.

### **Acidification, De-acidification:**

The conditions and limits on acidification/de-acidification are those laid down for the production of wine. De-acidification of fresh grapes, grape must, grape must in fermentation and new wine still in fermentation is permitted. De-acidification of wines is permitted only up to a limit of 1g/l expressed as tartaric acid. Acidification is not allowed, but in exceptional years and at the discretion of the Commission this may be authorised.

### **Sweetening:**

Sweetening after fermentation is a separate process from enrichment. The total alcoholic strength of the wine can be raised by sweetening by up to 4% volume, subject to a limit of 13.5% for enriched wines.

Sweetening must conform to the conditions of Annex I D, of Regulation 606/2009 concerning the production of Wine, and must take place in the PDO. The sweet-reserve used shall be limited to grape must, concentrated grape must or rectified concentrated grape must which, with the exception of rectified concentrated grape must, shall originate in the same PDO as the wine being sweetened.

### **d) Analytic characteristics:**

Each Sussex still wine will be subject to an independent analytical test:

- i) Minimum alcoholic strength of 10%.
- ii) Reducing Sugars: no set parameters.
- iii) Total Acidity: minimum of 5g/l for white wine and 4g/l for still red expressed as tartaric acid.
- iv) Volatile Acidity: a maximum of 0.7 grams per litre (expressed as acetic acid) for each bottled white, red or rosé wine.
- v) Total Sulphur Dioxide: The maximum Total Sulphur Dioxide -
  - For wines with residual sugar below 5g per litre - Red 100mg/l , White & Rosé 120mg/l
  - For wine with residual sugar above 5g but below 45g per litre - Red 120mg/l , White & Rosé 150mg/l
  - For wine with residual sugar above 45g per litre - 200mg/l
- vi) Free Sulphur Dioxide: Bottled at 15mg/l; maximum of 40mg/l for dry wines as defined in Part B, Annex XIV, of Regulation 607/2009.
- vii) Copper: a maximum of 0.5mg/l.
- viii) Iron: a maximum of 8mg/l.
- ix) Cold Stability: no crystal deposits when held at -4°C for 48 hours.
- x) Protein stability: The wine must remain unchanged in appearance after being held at 70°C for 2 hours and subsequently cooled to 20°C.
- xi) Sterility: There must be no indication of yeast or bacteria liable to cause spoilage of the wine.

### **e) Organoleptic characteristics:**

**Visual appearance:** Mostly pale yellow or lime through to pale golden for the white wines. Rosé wines can be blush - pale pink, rose petal, wild strawberry and pale through to mid salmon; with the red's appearing mostly pale ruby / violet through to mid ruby / violet and purple red hues.

The wine will be free from suspended sediment and clear to the observer.

**Aroma & Taste:** The cooler climate and longer growing season gives rise to wines with prominent floral and fruit driven flavours; characteristics such as lemon, lime, elderflower and other floral notes, apple, pear and gooseberry strongly apparent in the white wines. Rosé wines can be delicate and floral with hints of white flowers, rose petals, melon and strawberry. Reds will generally be lighter in style with soft tannins and hints of red and black fruits, leather, juicy plums and wild berry on the palate.

#### **f) Qualitative assessment:**

Each Sussex still wine will also be subject to an organoleptic test, by the Scheme Manager, Camden BRI, who will carry out a Qualitative Assessment on each still wine:

In order to pass quality status each wine must pass all 4 sections and achieve a grand total of 12 or more (out of 20).

- **Colour and Clarity** - score out of 3 (requires score of 2 or more to pass)
- **Nose** - score out of 7 (requires score of 4 or more to pass)
- **Palate** (Taste including overall balance) - score out of 10 (requires 6 or more to pass)

**Rejected Wines:** A consultant, chosen by the winemaker, will review any wine rejected and remedial action may be suggested. If the wine continues to be rejected the winery must not dispose of the wine (finished or unfinished) in any way that could jeopardise the Sussex Still wine name.

#### **g) Viticulture Practices:**

**Permitted Grape Vine Varieties:** The following grape varieties are permitted within the Sussex PDO for still wine production:

Acolon; Auxerrois; Bacchus; Chardonnay; Dornfelder; Gamay; Huxelrebe; Muller Thurgau; Orion; Ortega; Pinot Blanc; Pinot Gris; Pinot Meunier; Pinot Noir; Pinot Noir Précoce; Regent; Regner; Reichensteiner; Riesling; Rondo; Roter Veltliner; Schonburger; Siegerrebe; Solaris.

**Harvest yields:** Under normal conditions the maximum harvest yield shall be 12 tonnes per hectare.

The absolute maximum harvest yield is 14.0 tonnes per hectare\*.

(Note\*: This level will only be authorized in exceptional circumstances, when it can be proved to the SWP that sugar levels, acidity and flavour are not being jeopardised, or in fact where conditions are such that reducing yield could be detrimental to the quality of the crop. Notification of such an increase will be sent by SWP to producers, the scheme manager and Wine Standards.)

**Hand harvesting:** All grapes must be hand harvested\*.

(Note\*: Dispensation may be given by the SWP in exceptional years if machine harvesting is necessary to prevent rotten fruit from being left on the vine.)

## **7. Labelling:**

### **Sussex Sparkling Wine:**

Sussex sparkling wine can be labelled as “Sussex”, “Sussex Sparkling” or “Sussex Origin” with the term “bottle-fermented”, “traditional method”, “bottle fermented in the traditional method” or “traditional” on the label, as defined in Commission Regulation (EC) No 607/09.

Vintage Years – the 85% rule (above) applies.



Defined geographical area – The words “Produce of England” or something similar must be included on the label.

The term *‘protected designation of origin’* must appear on the label

The Sussex emblem may be displayed on the bottle.

The PDO emblem may be displayed on the bottle.

All labelling showing sugar and alcohol content must follow EU regulations.

### **Sussex Still Wine labelling:**

After a wine has qualified as a Sussex still wine it may use the name ‘Sussex’, ‘Sussex Still’ or ‘Sussex Origin’ on the label.

Vintage Years – the 85% rule (above) applies.

Defined geographical area – The words “Produce of England” or something similar must be included on the label.

The term *‘protected designation of origin’* must appear on the label

The Sussex emblem may be displayed on the bottle.

The PDO emblem may be displayed on the bottle.

All labelling showing sugar and alcohol content must follow EU regulations.

## **8. Record keeping:**

During the process of harvest and winemaking, the producer must ensure that records are kept that track all the processes and racking, the origination and varieties of must and wine, to ensure that the corresponding cuvée (blended wine) fulfils the PDO requirements and that the control body (Wine Standards) can identify at any time the different pressings and base wine in accordance with PDO and EC regulations.

If during an inspection by Wine Standards, for annual certification, the records fail to establish that the criteria necessary for Sussex PDO have not been met, approval for the wine in question will be withdrawn and it cannot be marketed under the classification scheme.

## **9. Applicant organisation:**

The Sussex PDO is open to all producers of Quality Wine in the Sussex area as defined in 3 above.

The ‘Sussex Wine Producers’ (SWP) is an organisation set up to oversee the smooth running of the Sussex PDO scheme and is open to all winemakers who produce a qualifying Sussex wine.

The articles of the established association set out the voting rights and rights of members to elect officials to the regulatory committee which will oversee the PDO in conjunction with Wine Standards.

The members will elect a small committee to manage the PDO scheme and the election rules are set out in the articles.

The costs of administering the PDO scheme including expenses of the committee and annual certification of PDO scheme membership will be met by a per bottle charge to be determined by the SWP.

The producer will be responsible for covering the cost of the post-disgorgement organoleptic test by the Scheme Manager.

Note: SWP have appointed Campden BRI (Corkwise) as the wine Scheme Manager.

## **10. Inspection and Certification**

### **A. Sussex Wine Producers (SWP)**

c/o Rathfinny Wine Estate  
Alfriston  
East Sussex  
BN26 5TU  
Tel: 01323 871031  
Email: [markd@rathfinnyestate.com](mailto:markd@rathfinnyestate.com)

### **B. Sussex PDO Scheme Manager**

Campden BRI  
Coopers Hill Road  
Nutfield  
Surrey  
RH1 4HY  
Tel: 01737 824244  
Email: [winesandspirits@campdenbri.co.uk](mailto:winesandspirits@campdenbri.co.uk)

### **C. Wine Standards, Food Standards Agency**

Aviation House  
126 Kingsway  
London  
WC2B 6NH  
Tel: 020 7276 8351  
Email: [graham.finch@foodstandards.gsi.gov.uk](mailto:graham.finch@foodstandards.gsi.gov.uk)

### **D. Accredited Laboratory**

Shall mean any laboratory accredited to assess wine within the European Union.