



EXPERT OPINION ON THE ASSESSMENT OF PROTECTED GEOGRAPHICAL INDICATIONS AND PROTECTED DESIGNATIONS OF ORIGIN WITH ESSENTIAL COMPONENTS OF THE PRODUCT SPECIFICATIONS

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I. PREAMBLE

Global trade and the diversity of supply are a challenge for every producer worldwide. While competition in one's own national market is becoming greater and more difficult due to imports, export opportunities on the other hand offer the chance to increase one's own sales.

This presents producers and authorities with major tasks. The most important thing here is to ensure that

1. Consumers must not be misled
2. only safe and high quality products may be placed on the market
3. fair competitive conditions for all food business operator are needed

In addition, on the one hand, tariffs ensure that national markets are kept in balance and, on the other hand, free trade agreements help to make it easier for market participants from third countries to access certain markets.

The EU internal market is a large and important market. Attractive not only for companies in individual member states, but also for companies in third countries. They can particularly benefit from the large market if they align with the regulations of the European Union.

II. GENERAL REGULATIONS FOR AGRICULTURAL PRODUCTS

EXCERPT FROM THE RELEVANT LEGAL REGULATIONS

The basis for this is the

Regulation (EU) 1308/2013 of 17 December 2013 on a common organization of the market in agricultural products and repealing Regulations (EEC) No. 922/72, (EEC) No. 234/79, (EC) No. 1037/2001 and (EC) No. 1234/2007 in the actual version of December 2023.

It is the basis for all agricultural products not only produced in the European Union but also traded there and therefore it is also the basis of wine law.

As part of the harmonization of the various national regulations in the individual member states, a uniform system was developed which grants the member states a limited amount of freedom in order to be able to respond to regional peculiarities.

The pursuit of high quality in wine production and the protection of consumers against counterfeiting and misuse are considered, as is the protection of producers against unfair competition and/or counterfeiting of their products.

Since Regulation (EU) 1308/2013 only provides the framework and cannot take all detailed questions into account, the Commission was given the power to issue detailed delegated or implementing acts in many places in this regulation.

With regard to protected geographical indications or protected designations of origin and protected traditional terms, these are, for example,


Commission Delegated Regulation (EU) 2019/33 of October 17, 2018 supplementing Regulation (EU) No. 1308/2013 of the European Parliament and of the Council in Covering applications for protection of designations of origin, geographical indications and traditional terms in the wine sector, the opposition procedure, restrictions on use, changes to product specifications, cancellation of protection and labelling and presentation

and the

Commission Implementing Regulation (EU) 2019/34 of 17 October 2018 laying down detailed rules for the implementation of Regulation (EU) No 1308/2013 of the European Parliament and of the Council as regards applications for the protection of designations of origin, geographical indications and traditional terms in the wine sector, which Objection procedures, changes to product specifications, the register of protected names, cancellation of protection and use of signs and Regulation (EU) No 1306/2013 of the European Parliament and of the Council relating to an appropriate control system.

Further regulations can be found in the

Commission Delegated Regulation (EU) 2018/273 of 11 December 2017 supplementing Regulation (EU) No 1308/2013 of the European Parliament and of the Council as regards the approval system for



vine plantings, the vineyard register, accompanying documents and certification, the entry - and exit registers, mandatory declarations, notifications and publication of the information communicated and supplementing Regulation (EU) No 1306/2013 of the European Parliament and of the Council as regards controls and sanctions in this regard and amending Regulations (EC) No . 555/2008, (EC) No. 606/2009 and (EC) No. 607/2009 of the Commission and the Leaving of Regulation (EC) No. 436/2009 and the delegated regulation (EU) 2015/560 of the Commission

and the

Commission Implementing Regulation (EU) 2018/274 of December 11, 2017 laying down detailed rules for the implementation of Regulation (EU) No. 1308/2013 of the European Parliament and of the Council as regards the approval system for vine plantings, certification, entry and exit registers, and mandatory reporting and notices, as well as implementing provisions for Regulation (EU) No 1306/2013 of the European Parliament and of the Council as regards relevant controls and repealing Commission Implementing Regulation (EU) 2015/561.

Which underwent another change in December 2022, which clearly shows that European Union wine law is subject to constant change.

The harmonization of legal regulations also has the effect that wine law no longer stands alone, but is increasingly intertwined with food law.

Particular attention is paid to this

Regulation (EU) No. 1169/2011 of the European Parliament and of the Council of October 25, 2011 on information to consumers about food and amending Regulations (EC) No. 1924/2006 and (EC) No. 1925/2006 of the European Parliament and of the Council and repealing Commission Directive 87/250/EEC, Council Directive 90/496/EEC, Commission Directive 1999/10/EC, European Parliament Directive 2000/13/EC and the Council, Commission Directives 2002/67/EC and 2008/5/EC and Commission Regulation (EC) No 608/2004.

It was last adjusted in 2018. In addition, the Food Information Regulation also transfers powers to the Commission to regulate detailed questions for individual product groups by means of delegated or implementing acts.

Of particular importance in this context are regulations on hygiene with the obligation to install a HACCP concept at all production stages

Regulation (EC) No. 852/2004 of the European Parliament and of the Council of April 29, 2004 on food hygiene,

and the Health Claims Regulation, which results in far-reaching restrictions on the possibility of advertising foodstuffs,

Regulation (EC) No. 1924/2006 of the European Parliament and of the Council of December 20, 2006 on nutrition and health claims made on foods.

The regulations regarding controls in the wine sector, above all Regulation (EU) 1306/2013 and its delegated and implementing regulations, must not be forgotten.

They all exemplify the many regulations that must be observed in grape and wine production.

This short overview already shows the complexity for food and beverage regulated in the European Union of food and wine law.

III. SYSTEMS FOR QUALITY ASSURANCE, CONSUMER PROTECTION AND FAIR COMPETITION

1.) GENERAL STRUCTURES

Systems have developed within the EU that serve to protect consumers and at the same time enable competition to be as fair and diverse as possible. This is always with the aim of maintaining high quality standards. They give producers the opportunity to show their strengths under the protective umbrella of the EU and to position themselves better on the market.

They also serve as a decision-making aid for the consumer, as they also provide knowledgeable consumers with information about the product in question.

Food and wine law places particular emphasis on origins and the type of production. This is expressed through three different models for agricultural products.

The basic regulations for wine sector products can be found in Section 2 of Regulation (EU) 1308/2013. Article 92 of Regulation (EU) 1308/2013 contains the following regulations for:

1. Protected designation of origin (PDO)
2. Protected Geographical Indication (PGI)
3. Traditional terms

They all contain different quality promises and information about quality and origin for the knowledgeable consumer, whereby the maxim applies:


“the smaller and more defined the area of origin, the higher the quality standards of the producer.”
In addition, the names are also protected and give the producer the security that his services cannot be copied by competitors.

The terms protected in this way within the EU guarantee producers and consumers that products referred to in this way have a defined quality standard.

The provisions on designations of origin and geographical indications apply only to products that have not undergone complete dealcoholisation [Art. 92 para. 1 VO(EU)1308/2013].

Such protection is guaranteed within the internal market of the European Union through the inclusion of the product in the electronic register e-Ambrosia.

The prerequisite for this is that a corresponding application for protection of the designation of origin or geographical indication has been submitted in accordance with Article 94 of Regulation (EU) 1308/2013 and has gone through a national preliminary procedure in accordance with Article 95 of Regulation (EU) 1308/2013. If this is assessed positively at national level, the detailed product specification must be published on the Internet, see Article 96 paragraph 5 of Regulation (EU) 1308/2013. The commission then begins the examination



According to Article 95 of Regulation (EU) 1308/2013, producer groups or professional representatives are entitled to apply and, under strict conditions, individual producers are entitled to apply too. In addition to the specific product specifications, the product to be protected must be compliant with national and EU law.

Only after the examination in accordance with Article 97 of Regulation (EU) 1308/2013 has the Commission issued an implementing act approving or rejecting the application, see Article 7 of Implementing Regulation (EU) 2019/34.

This protection can also be provided for geographical indications and/or designations of origin, of a third country which results from Article 94 paragraph 3 of Regulation (EU) 1308/2013, provided that these indications are already protected in the country of origin.

Some third countries have already made use of this possibility in the past.

For example, China with a protected geographical indication for wine called “沙城葡萄酒 / Shacheng Pu Tao Jiu”

can be found under the link

<https://ec.europa.eu/agriculture/eambrosia/geographical-indications-register/details/EUGI00000017918>

The complete product specification can be found in Appendix III of this documentation as an example of an approved detailed description.

The prerequisite for the Commission to act is that, in the case of an application from a Member State, a previous national preliminary procedure has been successfully carried out, and in the case of a third country there must be a positive decision that national protection already exists locally.

Before approval, the Commission publishes the application as part of the preliminary procedure, which enables Member States and third countries to object (Article 98 of Regulation (EU) 1308/2013). Furthermore, EU law also provides that protection, once approved, can be adapted to new findings by changing the individual specifications (Art. 105 Regulation (EU) 1308/2013 in conjunction with Implementing Regulation (EU) 2019/34).

Protected names are kept in the e-Ambrosia register (Article 104 of Regulation (EU) 1308/2013).

In addition, annual controls are carried out in accordance with Article 19 of Implementing Regulation 2019/34 in conjunction with Article 90 of Regulation (EU) No. 1306/2013 of the European Parliament and of the Council of December 17, 2013 on the financing, administration and control system of the Common agricultural policy and repealing Regulations (EEC) No 352/78, (EC) No 165/94, (EC) No 2799/98, (EC) No 814/2000, (EC) No 1290/ 2005 and (EC) No 485/2008 of the Council, which regulates controls on protected designations of origin, protected geographical indications and protected traditional terms.

Protected designations of origin, protected geographical indications and protected traditional terms have one thing in common. Any producer who meets the criteria specified in the respective specifications may use these protected names. According to EU law, the requirements set out in the product specifications may be non-discriminatory and objective (Article 94 paragraph 2 letter h) of Regulation (EU) 1308/2013).

At the same time, Member States and third countries applying for such protection must ensure that national authorities or organizations ensure compliance with the requirements through controls.

2.) THE PROTECTED DESIGNATION OF ORIGIN

What is meant by a protected designation of origin and what specific measures must be taken to achieve appropriate protection?

According to Article 93 paragraph 1 letter a) of Regulation (EU) 1308/2013, the term means designation of origin

“ a name, including a traditionally used name, which identifies a product referred to in Article 92(1):

- (i) whose quality or characteristics are essentially or exclusively due to a particular geographical environment with its inherent natural and human factors;
- (ii) as originating in a specific place, region or, in exceptional cases, country;
- (iii) produced from grapes which originate exclusively from that geographical area;
- (iv) the production of which takes place in that geographical area; and
- (v) which is obtained from vine varieties belonging to *Vitis vinifera* or a cross between the *Vitis vinifera* species and other species of the genus *Vitis*.”

The product may only consist of classified grape varieties and must be distinguished from other products by specific geographical characteristics. This includes not only geographical conditions, but also influences such as the climate and human skills when caring for the vineyards and working in the cellar. In short, everything that we can subsume under terroir.

Furthermore, the product must come exclusively from grapes in this clearly defined area.

In addition, a detailed product specification is required. The content for such a product specification can be found as a sample in Appendix I.

3.) THE PROTECTED GEOGRAPHICAL INDICATION

The geographical indication is defined in accordance with Article 93 paragraph 1 letter b) of Regulation (EU) 1308/2013

“a name, including a traditionally used name, which identifies a product referred to in Article 92(1):

- (i) whose specific quality, reputation or other characteristics are attributable to its geographical origin;
- (ii) as originating in a specific place, region or, in exceptional cases, country;
- (iii) as having at least 85 % of the grapes used for its production come exclusively from that geographical area;

(iv) the production of which takes place in that geographical area; and

(v) which is obtained from vine varieties belonging to *Vitis vinifera* or a cross between the *Vitis vinifera* species and other species of the genus *Vitis*.”

The geographical indication is broader and gives more producers more freedom.

Here too, the basis is quality criteria that must be adhered to.

The connection to the area and its typicality is also important for them, but 100% origin is not required. It is sufficient here if 85% of the grapes come from the respective defined geographical area. Appendix II as a model.

4.) THE PROTECTED TRADITIONAL TERM

Traditional terms can also be protected within the EU. According to Article 112 of Regulation (EU) 1308/2013, these can be used for products which are:

“traditionally used in Member States for the products referred to in Article 92(1) to designate:

(a) that the product has a protected designation of origin or a protected geographical indication under Union or national law; or

(b) the production or ageing method or the quality, color, type of place, or a particular event linked to the history of the product with a protected designation of origin or a protected geographical indication”

In accordance with Article 113 of Regulation (EU) 1308/2013, you receive protection within the EU if you meet the legal requirements.

This means that they must also be products in accordance with Annex VII Part II of Regulation (EU) 1308/2013.

For traditional terms in accordance with Article 25(1) of Delegated Regulation (EU) 2019/33, representative professional organizations and not individual producers are eligible to apply.

Article 25 paragraph 2 sentence 1 of the same regulation defines the representative professional organization as:

“a producer organization or an association of producer organizations with the same rules, which operates in the territory of one or more protected designations of origin or protected geographical indications for wine, if it includes at least two thirds of the producers in the territory concerned and at least two thirds of the production of that territory omitted.”

Furthermore, applications for the protection of traditional terms must meet the extensive requirements of Article 27 of the Delegated Regulation (EU) 2019/33. Examples of protected traditional terms are the names “Chateau”, which are protected for France, Luxembourg or Italy, and “Grand Cru”, which is a traditional term reserved for France.

IV. CONCLUSION:

North Macedonia, with its long tradition in wine-growing and its positive development in recent years, offers good conditions for the designation of protected geographical indications and protected designations of origin.

Especially in view of the fact that the aim is to be accepted into the European Union and that the temporary free trade agreements do not offer a permanent solution to ensure that access to the important European market offers a permanent opportunity for easy access, an alignment between general and special ones is necessary EU food and drink legislation recommended.

In addition, product specifications should begin to be developed immediately at the national level.

At the same time, it should also be clarified to what may be extent traditional terms can be registered for protection at EU level in order to prevent imitations by other market participants.

Likewise, regulations on original production, vinification and marketing must be adapted to existing European regulations.

This also includes documentation requirements, accompanying documents and possible certifications, particularly with regard to good professional practice in the area of organic production and the creation of HACCP concepts for producers from grape production to bottling of the finished product, as well as internal control systems in the wine industry and functioning official ones Control measures.

It is advisable to explore the geographical possibilities and conditions of wine production and to define protected geographical indications.

These must be accessible to all producers involved. They must be objective and not discriminatory, which also means that

the protected names may be open to any market participant who meets the conditions of the product specification.

EXCLUSIVITY FOR THE APPLICANT(S) IS THEREFORE EXCLUDED.

In a second step, smaller geographical features can be worked out for protected designations of origin, which must also be non-discriminatory and are available to any producer who meets the product specification. This is not comparable to associations on a private basis, which exclude other market participants and restrict participation only to their members.

Another component of successful classification in the sense of the protected designation of origin and/or protected geographical indication are regular control measures.

This requires a functioning official control system.

The controls required in Article 116a of Regulation 1308/2013 and which have been specified in more detail in Commission regulations is a factor to be taken seriously and should not be ignored.

This leaves us with major challenges and tasks for the near future

- A professional representation that represents the interests of winegrowers, grape producers and traders, in short those working in the wine industry, should be created. This could then represent the interests of the industry as a representative to the ministry responsible for viticulture and help draw up the necessary regulations.
- Alignment of national wine and food regulations, including all delegated and implementing regulations
- Creation of a national sovereign control system
- Association of producers to implement the following Tasks:
 - Geographical demarcation for protected geographical indications and protected designations of origin
 - Development of the respective product names
 - Application at national level with the aim of recognition and protection at European level, as a member state or as a third country.

ANNEX I

CONTENTS OF AN APPLICATION FOR THE PROTECTED DESIGNATION OF ORIGINE:

Content of an application for protection for a protected designation of origin:

- Name to be protected, as the designation of origin
- Name and address of the applicant
 - *a single applicant under special conditions*
- Applicant is the only producer interested in establishing a protected designation of origin
- The respective geographical area must have special features compared to neighbouring areas

Product specification with additional content such as:

- Territorial delimitation and type of geographical indication
- 100% grapes of this area
- Description of the wine indicating the category of the product
- Evaluation of organoleptic properties
 - Appearance
 - Odor
 - Taste
- Analytical properties
- Winemaking process
- Specification of the geographical basis
- Maximum permissible yields per hectare
- Approved wine grape varieties for the designation of origin
- Explanations of what makes this product so unique and
- how the specified conditions in combination make the product special
- If partial dealcoholization is permitted, this must be justified and defined in
- enological and organoleptic terms
- Features.



APPENDIX II

CONTENTS OF AN APPLICATION FOR PROTECTED GEOGRAPHICAL INDICATION:

- Name to be protected, type of geographical indication
- Name and address of the applicant

Product specification with additional content such as:

- Territorial delimitation and type of geographical indication
- 85% grapes of the geographical area
- Description of the wine indicating the category of the product
- Evaluation of organoleptic properties
 - Appearance
 - Odor
 - Taste
- Analytical properties
- Winemaking process
- Specification of the geographical basis
- Maximum permissible yields per hectare
- Approved wine grape varieties for the geographical indication
- The connection between quality and geographical origin.
- If partial dealcoholization is permitted, this must be justified and defined in oenological and organoleptic terms.
- Features

ANLAGE III

Product specification for a protected geographical indication from China

TECHNICAL SPECIFICATIONS FOR REGISTRATION OF GEOGRAPHICAL INDICATION

1. NAME OF THE GEOGRAPHICAL INDICATION

Chinese name: 贺兰山东麓葡萄酒

Transcription in Latin characters: Helanshan Dong Lu Pu Tao Jiu

Translation for information purposes: Wine in Helan Mountain East Region

2. CATEGORY OF THE PRODUCT FOR WHICH THE NAME IS PROTECTED

Wine

3. APPLICANT

Applicant: People's Government of Ningxia Hui Autonomous Region

Address: 361 Jiefang West Street, Yinchuan City, Ningxia Hui Autonomous Region, China, 750001

4. PROTECTION IN CHINA

Date of Protection: January 30th, 2011

Proof of Protection: The General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China (AQSIQ), Notice (2011) No. 14

5. DESCRIPTION OF PRODUCT

1) Manufacturing process

① Red Wine

After harvesting, sorting, destemming, and crushing, grapes will be macerated and fermented for 7-10 days and the fermentation temperature should be 25-28°C. When sugar level decreases to the required standard, grape must is separated and transferred to for Malolactic Fermentation (MLF), the fermentation temperature is controlled at 16 to 20°C. When malic acid level is lower than the requirement, the wine is drained off the skins, clarified, stored, sterilised and filtered. A fresh wine type should be stored for six months to two years while aging wine type should be stored no less than two years and no less than one year in oak barrels.

② White Wine

After harvesting, sorting, destemming and pressing, grape juice is clarified, racked and fermented in low temperature. The fermentation temperature is controlled at 16 to 20°C and takes 7-15 days. When sugar level decreases to the required standard, white wines are undergone clarification, storage, stabilization, sterilisation and filtration. Fresh wine type should be stored for no more than one and a half years while aging wine type should be aged more than one and a half years. Dry white wines made from Chardonnay grape variety can be stored in oak barrels.

(2) Sensory characteristics

① **Appearance:** white wines are approximately colorless and show signs of yellow-green, light straw yellow, straw yellow and golden color. Red wines are deep purple, deep red and deep ruby.

② **Aroma:** Pronounced and pure, with typical varietal characteristics.

③ **Palate:** White wines taste fresh, harmonious and balanced. Red wine taste rich, round, with balanced and harmonious structure.

(3) Physicochemical Indexes

Physicochemical Indexes Chart of Wines from Helan Mountain East Region

ITEMS		REQUIREMENTS
Volatile Acid (acetic acid juice) g/L		≤ 1.0
Shugar-free Extract g/L	White Wine	≥ 18.0
	Red Wine	≥ 20.0
Achocolic Content (20°C)	White Wine	11.0 - 14.0
% (V/V)	Red Wine	12.0 - 15.0

(4) Raw Materials and Requirements

① Place of Origin Requirement

The grapes making Helan Mountain East Region wines should be from the place of origin of protection zone.

② varieties

The varieties to maked wines are Cabernet Sauvignon, Cabernet Gernischt, Merlot, Cabernet Franc, Syrah, Pinot Noir, Marselan, Sangiovese, Tannat, Beimei, Beihong, Petit Verdot.

The varieties to make white wines are: Chardonnay, Italian Riesling, Riesling, Sauvignon Blanc, Chenin Blanc, Semillon, Gewurztraminer, Vidal, Petit Mansen, Longyan.

③ Quality Requirements

Grape sugar levels should be more than or equal to 190g/L. Grapes are evenly colored, fresh, clean, without diseases and pests infection, no moldy, rotten, broken, green or stiff berries.

6. CONCISE DEFINITION OF THE GEOGRAPHICAL AREA

(1) Geographic Area Boundary: The intersection is located between the flooded tilted plain of the eastern foothills of Helan Mountain and the impacted plain of Yellow River. With a total area of 200,000 hectares, it is north to Dawukou as the boundary, south to the Qukou Farm passing through Baima Township to Hongsipu in the Zhong (Ning) Yan (Chi) Highway (No. 302 National Road) on both sides as the boundary, east to two kilometers away of the eastern sides of the Yuejin Canal, the Tang Lai Canal, the Xinkai Canal and No.2 Farm Canal, west to the 1200 meters contour line of Helan Mountain Eastern foothills fan shaped alluvial area. In accordance with the administrative delimitation, it covers 30 administrative areas of villages, towns, farms, forest farms and scientific research institutes. It includes Chonggang Town, Xiamiao Township and Qianjin Farm in Pingluo County; Jinshan Township and Nuanquan Farm in Helan County; Zhenbeipu Town, Xingjing Town, Nanliang Farm, Helan Mountain Ranch, Agricultural Research Institute Base and Pingjipu Dairy Farm in Xixia District of Yinchuan City; Liangtian Towns in Jinfeng District of Yinchuan City; Wangyuan Town, Shengli Township, Zenggang Township, Lijun Town, Yinchuan Forest Farm, Huangyangtan Farm and Yuquanying Farm in Yongning County; Ganchengzi Township, Shuxin Forest Farm, Lixin Town, Daba Town, Guangwu Township and Lianhu Farm Branch in Qingtongxia City; Qukou Farm and Baima Township in Zhongning County; Hongsipu Town of Hongsipu District, Dahe Township and Nanchuan Township.

(2) Basic Procedures of Production Technique

① Dry White Wine:

Materials → Sorting → Destemming and Crushing → Pressing → Clarification → Low Temperature Alcoholic Fermentation → Aging → Stabilization → Bottling

② Dry Red Wine:

Materials → Sorting → Destemming and Crushing → Alcoholic Fermentation → Malolactic Fermentation → Clarification → Aging → Stabilization → Bottling

(3) Technological Requirements:

① Alcoholic Fermentation Method:

Alcoholic fermentation of red wine is only allowed using traditional maceration method, that is, after destem and crush, various machinery tools could be adopted such as punching down, pump over as well as rack & return to achieve rapid maceration effect.

Alcoholic fermentation of white wine uses low temperature fermentation, that is after clarification, the grape juice is fermented at 14°C to 18°C.

② Malolactic Fermentation: All red wines must undergo Malolactic Fermentation.

③ Aging condition and duration: The wine can age in pots, oak barrels and bottles.

The aging temperature is required to be under 18°C. The aging duration of white wine is required no less than 6 months and red wine is required no less than 18 months.

(4) All the production processes are carried within the origin of protection zone

- ① All the grapes for making wine are from origin of protection zone.
- ② All production sites including bottling are within the origin of protection zone.

7. LINK WITH THE GEOGRAPHICAL AREA

Helan Mountain East Region, the "Golden Zone" for viticulture, is located at western edge of Yinchuan Plain, located at 105°45'39" to 106°27'35" east longitude and 27°43' to 39°05'3" north latitude with Helan Mountain on the west and Yellow River on the East. Located within medium temperate arid climate zone, it has a typical continental climate with low rainfall, high evaporation, dry air and medium temperature, adequate sunshine, and large diurnal temperature fluctuation. Therefore, it possesses favourable conditions of producing premium wine grapes. Its main geographical characteristics are listed below:

(1) Temperature Condition

The active accumulated temperature (over 10°C) in of Helan Mountain East Region during grape growing season (April-October) is around 3300°C, which provides favorable condition to grow middle-ripening and late-ripening *Vitis vinifera* grapes. Particularly during the veraison period from early August to late August, it has both high daily average temperature (about 23°C) and significant diurnal temperature difference (from 10 to 15°C), which are good for accumulating phenolic materials such as sugar and pigment. While during the ripening period from late August to late September, due to the proper temperature, grape berries ripen slowly and fully, which is ideal for accumulating aroma and phenols and finally to achieve the balance among sugar, acidity and phenolic substances in grapes.

The average annual active accumulated temperature (over 10°C) is 1534.9°C while 961.6°C from July to September. Its indexes of active accumulated temperature, sunshine hours and sunshine intensity are all superior to international standards.

(2) Precipitation Condition

Located in arid and semi-arid zone of western China, the average annual rainfall in Helan Mountain East Region in 30 years is only 193.4mm with an extremely shortage of rainfall in spring and summer. Thanks to the convenient Yellow River irrigation condition, vineyards are irrigated timely in growing period during April to October to meet the water demand. During ripening period from July to September, rainfall rate is lower than the international standard and K value (hydrothermal coefficient) is 0.58 - 0.83 far superior than the internationally recommended standards (below 1.5) for growing premium grapes. These conditions are not only beneficial for the quality of grape berries and also beneficial for reducing occurrence of diseases and pests.

(3) Sunshine Condition

Helan Mountain East Region enjoys great advantages in rich photothermal resources, adequate sunshine hours and significant diurnal temperature fluctuation. Annual sunshine hours can reach 2851-3106h far more than the internationally accepted standard (2000h per year). During veraison period of grapes from August to September, it has sunny weather, adequate sunshine favoring berry skin pigment formation and accumulation of total volatile ester. This would improve the grape aroma profile and enhance the grape coloring.

(4) Soil Condition

Helan Mountain East Region located at the second-tier platform between fan shaped alluvial area of Helan Mountain and Yellow River flooded plain. The grape growing area in Helan Mountain East Region features a broad plain, little terrain undulation, small and shallow gullies and slight soil erosion. The soil parent material is mainly formed with alluvial materials and soil is mainly light sierozem and soil texture is mainly sandy soil containing certain amount of gravel and sand. The soil depth is from 40cm to 100cm with loose texture and strong aeration and drainage ability, which is beneficial for vine roots development. The low content of organic materials (most lower than 0.5%) and pH ($\text{pH} < 8.5$) in the soil limit the output of grape production ensuring high-quality grapes. The gravel and sand elements in soil can help to make high-quality white wine with elegant aromas and delicate red wine. Sandy soil can produce rich, round and long aging white and red wines.

8. SPECIFIC RULES CONCERNING LABELLING AND USING (IF ANY)

None

9. CONTROL BODY / CONTROL AUTHORITY RESPONSIBLE FOR CHECKING THE RESPECT OF THE PRODUCT SPECIFICATIONS

Ningxia Hui Autonomous Region Administration of Quality and Technical Supervision

