



TDC's sustainability is part of the Farchioni1780 Integrated Sustainability Project

- ☐ FARCHIONI draws up its sustainability report certified from 2020
- ☐ The sustainability report was drawn up in accordance with international standards and the UN 2030 agenda
- ☐ FARCHIONI, the first oil company to have a certified sustainability report
- ☐ FARCHIONI, the first company to have a sustainability balance integrated into all its agricultural production and related production processes
- ☐ In 2021 we decreased total greenhouse gas emissions by -6.4% compared to the previous year, from 5,314 tco2eq for the year 2020 to 4,975 tco2eq for the year 2021
- ☐ For further information, please consult the following Web address: www.Farchioni178o.Com













































The VIVA certification allows you to concretize and account for the topics focused by **Agenda 2030**.

With particular regard to:



















Our objective

Terre De La Custodia with the VIVA certification, aims to carry out a diagnosis *of its sustainability* performance with an all-round approach that includes all the pillars of sustainability divided into 2 levels:



Organization:

Evaluating the overall environmental performance of the company **Terre de la Custodia**



Product:

Analyzing the life cycle of **6 products**

...A conscious choice for the community...

- Reduction of environmental impacts
- Competitiveness in the national and international market
- Reduction of production costs and waste of resources
- Reliability and transparency
- Awareness and involvement

...In a context where the concept of sustainability is already well established





Our certified wines

Product and organisation certificates



Organization certificates



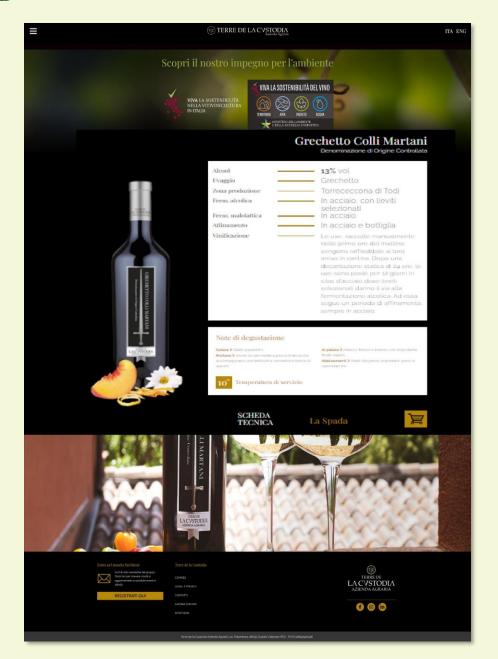


Web label and landing page for certified wines

Label of a certified product



Webpage



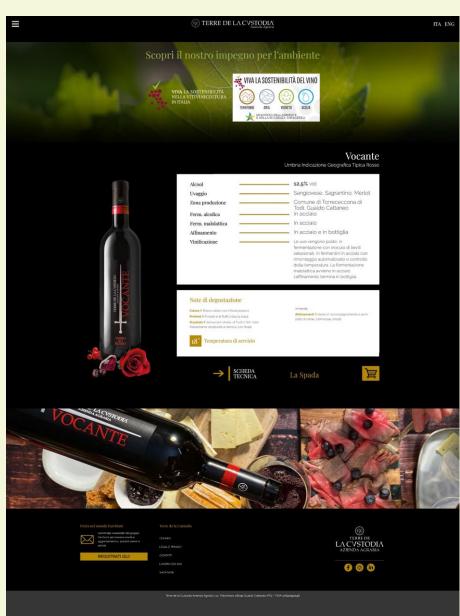


Label and web landing page for wine organization

Label for the wines IGT



Webpage





Our results compared to other VIVA certified companies

ARIA

Wines/wineries VIVA

- Mediakg CO2/Bott. 0,75 certified wines (ARIA)

1,41 Kg CO2/Bott. 0,75

- Average kg CO2/Bott. 0,75 certified RED wines (ARIA)

1,53 Kg CO2/Bott. 0,75

- Average kg CO2/Bott. 0,75 certified WHITE wines (AIR)

1,13 Kg CO2/Bott. 0,75

- Average kg CO2/Bott. 0,75 certified SPMA wines (ARIA)

1,55 Kg CO2/Bott. 0,75

MediaT CO2/year Certified Company (ARIA)



5140,62T CO2/Year

Terre de la Custodia

1,46 Kg CO2/Bott. 0,75

1,43 Kg CO2/Bott. 0,75

1,68 Kg CO2/Bott. 0,75

1,50 Kg CO2/Bott. 0,75

3340,87T CO2/Year



Our results compared to other VIVA certified companies

ACQUAeVIG NETO

- Medial/bott. 0,75 certified wines (Water)
- Medium L/bott.0,75certified RED wines(Water)
- Medium L/bott. 0,75white wines certified (Water)
- Medium L/bott.
 0,75SPUMANTIcertificati (
- Water)Mediam3-eq/year Certifiedcompany (Water)
- Average scoreCertified vineyard
- Average score Certified vineyard

Wines/wineries VIVA

- **58** L/bott. 0,75
- **60** L/bott. 0,75
- **52,88** L/bott. 0,75
- **62,57** L/bott. 0,75
- **62.370,67m3** eq-H20/Year
- **0,30 Class B**
- **◯ 0,35 Class B**

Terre de la Custodia

- **27**L/bott. 0,75
- 28,33 L/bott. 0,75
- **25** L/bott. 0,75
- 25 L/bott. 0,75
- **36.500,00m3** eq-H2O/Year
- 0,27→Classe A
- 0,24→Classe A



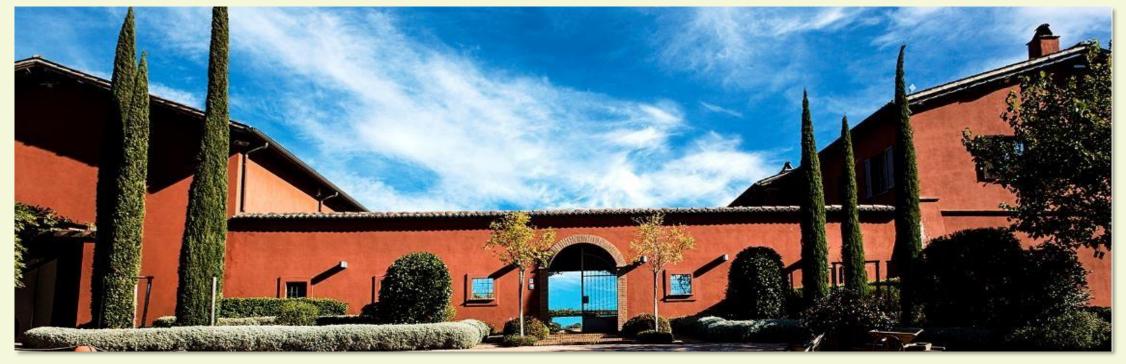
Emissions from VIVA certified wineries... a comparison



Kg co2eq/bottle 0.75 l



Pleasures to share



Terre de la Custodia, in the heart of Umbria and the denomination of origin «Montefalco».

Totally immersed in the green of the territory **of** Sagrantino, **it consists of about** 175 hectares of vineyards consisting of native vines such as Sagrantino and Grechetto, but also of more classic varieties such as Sangiovese and Merlot.

It was the Franciscan friars who planted the first vines of Sagrantino and Grechetto , handed down years of the secrets of the wine art

Even today we keep these secrets to create wines with a precious and ancient taste.



For centuries we have valued a unique territory... Umbria





- Our red berried grape varieties
- Sagrantino,
- · Sangiovese,
- Merlot,
- Montepulciano

Used for the Montefalco Rosso riserva, Montefalco Sagrantino DOCG and Colli Martani DOC (Montefalco, Gualdo Cattaneo and Todi)

Our white grape varieties

- · Grechetto,
- Chardonnay,
- Trebbiano Toscano,
- Trebbiano Spoletino

Used for Montefalco Bianco, Montefalco Grechetto, Colli Martani DOC; (Montefalco, Gualdo Cattaneo and Todi)



Definition of sustainable viticulture

The International Organisation of Vine and Wine (OIV) resolution CST 1/2004 defines **Sustainable Viticulture as follows:**

"A global approach commensurate with the systems of production and processing of grapes, combining the economic longevity of the structures and territories, the production of quality products, the taking into account of the needs of a viticulture of precision, the risks related to the environment, product safety, consumers' health and the enhancement of heritage, historical, cultural, ecological and landscape aspects."





Wine growing and sustainability

Sustainable viticulture respects the environment:

- Demonstrate the **positive** role of the wine sector for the environment and ecosystems,
- Preserving the sustainability of the vineyard as an entity or production unit,
- Consider the environmental impact as a whole, assessing all possible effects on the environment,
- Ensure efficient and limited use of natural resources
- Contribute to the promotion of sustainable production by suppliers and sustainable consumption by consumers.







Minimisation of erosion risk, of loss of biodiversity and nutrients in the soil

- Sustainable control of weeds
- Use of **low impact herbicides**
- Implementation of a **sustainable** fertilisation plan **and rational use** of pesticides
- Use **forecasting** models of monitoring and field observations
- Awareness of threatened and protected species in their area

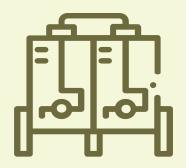


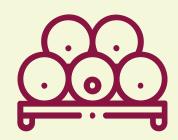
Wine growing and sustainability

Inputs management

- Know your energy consumption and water (total quantity, quantity per production unit, type of energy source) and the main consumption sites.
- Input for the winery (wine products, packaging material, etc.).
- Detailed definition of «process protocols»
- Periodically conduct a general review of process protocols and cellar notebooks to identify operational methods that minimize water and/or energy consumption and/or the use of processing aids, additives and nutrients.







Outputs Management

- Total waste, including waste water,
- % recycled waste and recycled waste water,
- exploited by-products:
 - quantity,
 - value

Quantification of Greenhouse Gas (GHG) emissions and of the total equivalent CO2 emissions per unit produced (tco2eq).



Wine growing and sustainability

Sustainable viticulture is sensitive to social and cultural aspects

Organisations should assess the impact of their activities on the socio-economic context and consider participating in the socioeconomic development of the territory



Promote **quality** working conditions, which allow the preservation of mental and physical health of employees and safety in the workplace

The wine products "business card" of a region.

They spread its cultural and geographical specificities.

traditions

The wine sector has a close link with its territory, its history and its



Safety and health at work

Human development and training

Value-sharing

Communication to consumers of moderate and responsible consumption practices





Certification of the sustainability of the wine sector



In 2020, Article 224b of Law 77 of 18 July states:

Departmental Decree No. 288989 of 23

June 2021

Departmental Decree No. 124900 of 16/03/2022

Approval of the specification of the certification system for the sustainability of the wine sector

'In order to improve the sustainability of the various stages of the production process in the wine sector, a system of certification of the sustainability of the wine sector shall be established, as the set of production rules and good practices defined with a specific production specification. «

«In order to ensure the implementation of the provisions of Article 224-ter of Law 77 of 18 July 2020 in the specific wine sector, the Wine **Sustainability** Committee, hereinafter CoSVi, is hereby established.»

CoSVi also includes a component of existing national certification systems, including VIVA

For the 2022 annuity, this certification system is identified within the **SONPI** certification

Existing national certification systems, including VIVA, have contributed to the work of harmonising the specification, and therefore they are considered systems of certifications conforming to the disciplinary and authorized to the use of the relative distinctive sign





Progetto VIVA

In accordance with Departmental Decree No. 124900 of 16/03/2022

In June 2022, Terre De La Custodia voluntarily signed an agreement with the Ministry of Environment and Energy Security to the VIVA-Sustainability in Viticulture project in Italy.

Project realized with the scientific collaboration of the Reasch Cenetr i Ricerca **OPERAof** the Catholic University of the Sacred Heart and the **research** center Agroinnova.

In 2017, the Minister of Ecological
Transition and the **Minister of Agricultural Food and Forestry Policies** (MIPAAF), signed an interministerial decree to launch a work programme aimed at harmonising and integrating two sustainability systems:

VIVA and the National Integrated Production Quality System (SQNPI)









Program VIVA

VIVA measures the sustainability performance of companies and products through the calculation of 4 indicators, namely:

AIR, WATER, VINEYARD and TERRITORY.

For the analysis of each indicator, **technical** specifications and calculation **software** have been developed to ensure the standardization of the process and the comparison of impacts over time.



Membership of the VIVA Programme is recognised as a rewarding criterion by the following monopolies:

<u>ALKO - Finnish monopoly</u> <u>VINMONOPOLET - Norwegian monopoly</u> <u>SYSTEMBOLAGET - Swedish monopoly.</u>



ARIA

Carbon Footprint, (compliant with ISO 14067:2018 Product and 14064:2018 Organization),



TERRITORY

Analysis of the link between wine and its territory



VINEYARD

Impact on soil and water reserves of agronomic management of vineyards



WATER

Water footprint, (according to ISO 14046:2014)



Operational steps

- Definition of a significant reference period for data collection: 2021
- 2. Sampling of Vineyards



 We have selected the only vineyards whose grapes contribute to the production of the product under analysis



- All the vineyards of Terre de la Custodia have been analysed
- Finding structural data of our seal such as soil analysis, meteorological data etc... useful for the calculation of indicators

- Data collection for each of the 4 indicators
 - ✓ Correct time coverage
 - ✓ Correct geographical coverage
 - ✓ Accuracy and completeness of data
- 5. Data entry in the appropriate web application and calculation of indicators (https://viticolturasostenibile.org/)
- 6. Compilation of the External Communication Study Report for the 4 indicators
- 7. Results and data validated by an independent third party and label release

DNV



Labels VIVA

VIVA labels are synonymous with absolute transparency between the producer and the consumer, ensuring clear, complete, uniform and transparent communication of the results of the analyses certified by a third party.



Product Label

In all cases a QR CODE is combined, through which the consumer has the opportunity to view our results for the 4 indicators VIVA





Label of Organization





International market label





VIVA logo, affixed in every product (even if not certified)



Analysis of Indicators: Vineyard



The vineyard indicator takes into account the agronomic management practices of vineyards, and in particular assesses the use of agropharmaceuticals and their consequences on water bodies and soil.

- •The environmental risk arising from **the use of agropharmaceuticals** based on chemical properties and ecotoxicological limits;
- •The use of **organic and mineral** fertilizers, evaluating the potentially harmful effects such as excess nutrients in the soil and contamination of water bodies.
- •Problems related to **soil compaction** resulting from cultivation operations.
- •The evolution of organic matter in soil as a result of related management practices;
- •Soil losses caused by **erosionin relation** to agronomic management practices and the use of agricultural machinery;
- •The influence of agronomic management practices on **biodiversity.**





Analysis of indicators: Water



The water footprint expresses the total volume of freshwater consumed and can be referred both to the company in its entirety and to a single bottle of 0,75 l. It is an indicator of the consumption of fresh water that takes into account the water consumed and polluted in the vineyard and in the cellar for the production of wine.

Measuring human impacts on the water resource: *Qualitative and quantitative impacts*

Direct Water Scarcity Footprint: Quantitative impacts

It is a measure of the potential water scarcity due to the direct consumption of volumes of fresh water, surface or underground, really consumed in the field and in the cellar that does not return downstream of the production process at the same point of collection or returns at different times;m3 h2o-eq/year

Non-ComprehesiveDirect Water Degradation Footprint (Water Quality Degradation): Qualitative Impacts

It represents the volume of polluted water, quantified as the volume of «virtual» water needed to dilute pollutants so that water quality remains above defined quality standards (legal and/or ecotoxicological).





Analysis of indicators: Water



The peculiarity of the water indicator is to be an indicator of sustainability so-called space-temporally **explicit**

Where is the consumption? When does this consumption take place?

Structural Data:

- Slope
- Distance from the body of water
- Water body width and depth
- Groundwater

Variable data:

- 1. Grape yield and yield in wine
- 2. Exercise book
- 3. Average treatment volume
- 4. Average wash volume
- 5. Presence of mitigation devices
- 6. Processing address of the wine
- 7. Total wine produced in the reference year

Factor of
characterization:
Multiplicative factors
from 0.1 to 100, the
greater the
characterization factor
the greater will be the
water scarcity in that
particular place
compared to the world
average

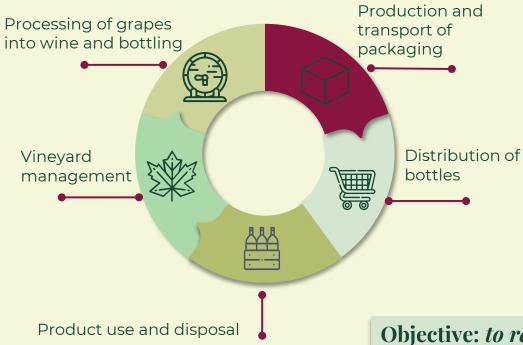


Analysis of Indicators: Air



The ARIA indicator expresses the impact that the production of a specific product (CFP=Carbon Footprint of a Product) and/or the set of business activities (GHGI=Greenhouse Gas Inventory) have on climate change.

Product Climate Footprint: Life Cycle Analysis Related to a 0.75 Bottle



GHGI greenhouse gas inventory

Analysis related to the company carried out through the development of an **inventory of greenhouse gas emissions** expresses the total emissions generated by business activities and allows producers to highlight the areas of intervention in order to reduce the impact on climate.

The analysis includes the identification of direct and indirect emissions of GHG associated with the activities of the organization and divided into six categories, consistent with the provisions of ISO 14064-1:2018

Objective: to reduce impacts over time by periodically improving



Analysis of Indicators: Territory



Territorial was created to consider, in the assessment of sustainability, the landscape, as well as social and economic aspects. In the overall panorama of Italian agriculture, the landscape drawn by the cultivation of vines in fact, has a fundamental importance.

The indicator consists of 3 sub-sections:

- Landscape and Biodiversity: Business activities aimed at protecting the environment, biodiversity, ecosystems, the landscape as a complex of elements, natural and not, characteristic of a given area
- **Society and Culture:** included in this section are all the requirements that identify the business activities that have an impact on society and the local community
- Economics and Ethics: Business Activities with Positive Community Implications







100% of our vineyards are SQNPI certified



Data source

- Phytosanitary treatment register
- Fertilisation register
- Soil and agronomic data of vineyards
- Register of operations



Our technicians are careful to take care of the choice **of the breeding** system and pay attention to **the** vegetative density according to the type of vine and the environmental conditions

Our vineyards have achieved for each product analyzed and by organization as a whole, the A rating, in our case with a value of *0.27* due to an *excellent result*

The classification of VIVA vineyards

Viva provides a classification of its vineyards according to 3 critical classes:

- Proximity to water body < 100 m
- *Gradient* >15%
- Grass cover <50%
- The buffer strips of at least 3 meters (hedges, tree strips, etc.) protect the water bodies that are in the vicinity of our vineyards
- Only 4 ha of vineyard is on a gradient of more than 15%
 - In all our vineyards is practiced grassing



The importance of grassing:

The grassing conducted by the company Terre de la Custodia is the result of technical choices of our agronomists, made on the basis of the environment in which we are located.

Our company has decided to implement the grassing technique without abandoning the machining operations. TDC conducts a type of spontaneous and artificial grassing.

Artificial: in autumn (October-November) seed mixtures such as **Sulla**, **Clover**, **Forage Pea**, **Oats**, **Facelia**, **and Veccia** are sown.

Grassing is a very useful practice because:

- decreases erosion in hilly soils
- It also allows to limit compaction in clay soils and improve soil lift, thus allowing the easy passage of agricultural vehicles even in wet soil after a rainy day.
- It improves the development of the root system of the vineyard and promotes the absorption of microelements.
- Economic and time saving: choosing grassing means making much less tillage on the ground
- At certain times of the year, the grassy layer is chopped and used as a «mulching» medium in order to avoid **excessive** evaporation of the soil and maintain an appropriate level of soil moisture
- In excessively dry periods a slight harrowing of the soil is carried out in order to ventilate it, exploiting the «self-sowing» power of the vegetation that was previously there.



Before and after the harvest

Sampling of the bunches

Near the harvest time, samples are taken in the field to evaluate the ripening curves of the grapes and estimate the optimal time at which the grapes can be harvested





Disposal of stems and pruning residues

Most raspirimans in the field attached to the plant as a result of mechanical harvesting.

About 1/3 of the stems instead, are **disposed of in the field** in the vineyards adjacent to the winery and become organic substance for the soil, as well as **pruning residues**, which after being chopped are subsequently left in the field as enrichment of organic substance. This creates a **closed circle and a respect the nutritional balance of the vineyard.**



Our concept of...

1

Integrated agriculture:

Agricultural system with low environmental impact that aims at a rational use of plant protection products and the use of agricultural techniques in respect of the environment, the health of the product, consumers' health and viticulture

2

Technology in respect of tradition:

A modern viticulture with the latest agricultural vehicles equipped technologies...but with a constant look at the tradition that binds us the territory 3

Protection of Biodiversity'

The presence of grasslands consisting of various plant species promotes the function of refuge for birds and entomofauna useful for the gamic fertilization of plant species

Biological balance between plant and animal species





... of sustainable viticulture



4

Sprayers to recovery:

Use recovery
machines means less
dispersion of plant
protection products in
the environment,
lower doses used and
less water
consumption

5

Preserving the water resource:

Irrigation in our vineyards is exclusively emergency and intended only for a small part of these. In the new vineyards thanks to 4.0 irrigation it is possible to rationalize the water resource thanks to sensors that calculate the actual quantity that the plant needs

7 0

Weather monitoring

Terre de la Custodia has installed 7 weather huts in order to monitor the weather in real time and intervene with field operations only in the conditions that allow it, monitoring fundamental parameters such as T, Rain (mm) and wind

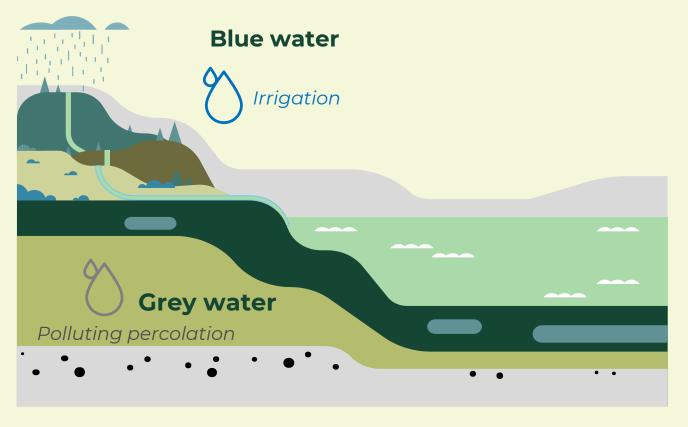




Estimated water consumption volumes

Green water



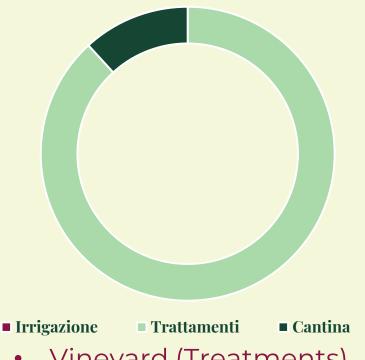


- Blue water from vineyards (irrigation), corresponding to the volume of surface water or groundwater taken from water bodies and used for the irrigation of vineyards, which does not return to the same source from which it was taken, or returns to it at different times;
- Blue vineyard water (treatments), corresponding to the volume of surface water or groundwater taken from water bodies and used to carry out phytosanitary treatments in vineyards. Includes the volume of water required for dilution or dissolution of the formulations and the volume of water used for washing of agricultural media following treatments;
- Blue cellar water, corresponding to the volume of surface water or aquifer taken from the water bodies and used for the activity of the winery (vinification + bottling) that does not return to the same source from which it was taken, or returns there but at different times.



Organization Water

Direct Water Scarcity Footprint



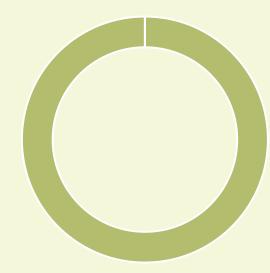
- Vineyard (Treatments)
 5420,00m3 H2O-eq/year
- Cellar 31100,00m3 H2Oeq/year



TOTAL 36.500,00 m3 H2O-eq/year

Non-Comprehensive Direct Water Degradation Footprint





Vineyard 4,43E+04 m3 H20/year



Product Water

Direct Water Scarcity Footprint and Non-Comprehensive Direct Water Degradation Footprint

Grechetto Colli Martani DOC

Vineyard (Irrigation) **OL H2O** -eq/bott Vineyard (treatments) **6L H2O** -eq/bott Cellar **19L H2O** -eq/bottle **Water quality degradation 5 L H2O-eq**/bott

Umbria Rosato PGI

Vineyard (Irrigation) **OL H2O** -eq/bott Vineyard (treatments) **8L H2O**-eq/bott Cellar **19L H2O** -eq/bottle, **Water quality degradation 25 L H2O**-eq/bott

Montefalco Rosso DOC

Vineyard (Irrigation) **OL H2O** -eq/bott, Vineyard (treatments) **8L H2O** -eq/bott Cellar **19L H2O** -eq/bottle **Water quality degradation 13 L H2O**-eq/bott



Montefalco Sagrantino DOCG

Vineyard (Irrigation) **OL H2O** -eq/bott Vineyard (treatments) **9 L** H2O-eq/bott Cellar **19L H2O** -eq/bottle **Water quality degradation 773 L H2O-**eq/bott

Quality sparkling wine

Vineyard (Irrigation) **0L H2O** -eq/bott Vineyard (treatments) **5L H2O** -eq/bott Cellar **19L H2O** -eq/bottle **Water quality degradation 5 L H2O-eq**/bott

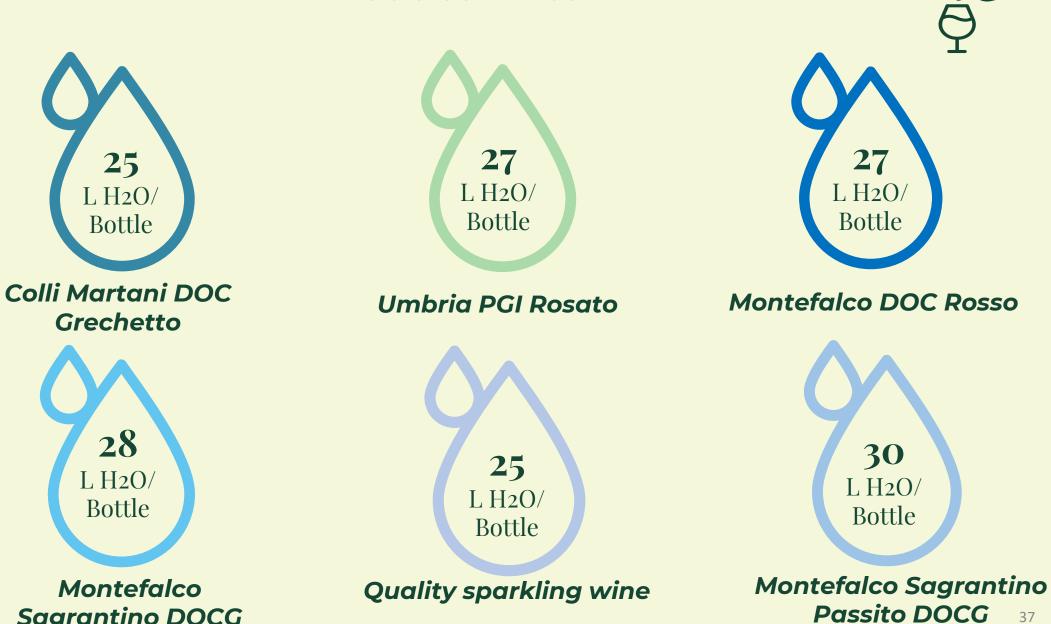
Montefalco Sagrantino Passito DOCG

Vineyard (Irrigation) **OL H2O** -eq/bott Vineyard (treatments) **11L H2O** -eq/bott Cellar **19L H2O** -eq/bottle **Water quality degradation 473 L H2O**-eq/bott



Sagrantino DOCG

Product Water





Product Water of VIVA certified products... A comparison









Terre de la Custodia GHG emission inventory

Kg co2eq/bottle 0.75 l



- **7093.31 of** selfproduced grapes and **3893 of** grapes bought
- **1.700.000** bottles bottled
- **7324.45** hl of wine produced by Terre de la Custodia
- Vineyard 0,23
- Packaging 0,77Cellar 0,33
- Distribution 0.32
- Consumption
- Vineyard 0,35 Packaging 0,78
 - Cellar 0,16
- Distribution 0.32

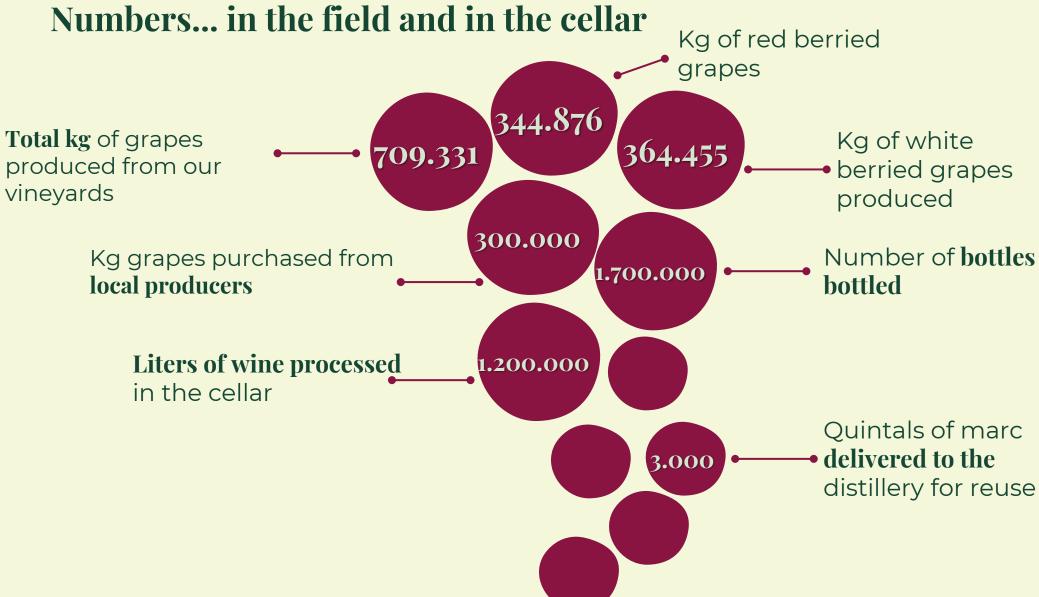
- Consumption

- Vineyard 0,23
- Packaging 0,67 Cellar 0,25
- - Distribution 0.32
- Consumption

- Vineyard 0,28
- Packaging 0,77 Cellar 0,23
- Distribution 0.32
- Consumption

- Vineyard 0,24
- Packaging 0,60Cellar 0,15
- Distribution 0.30
- Consumption
- Vineyard 0,14Packaging 0,46
- Cellar 0,15
- Distribution 0.28







Energy consumption



425061,25k wh consumed in the cellar



29187kWh consumed in agriculture



74016,29 kWh imported from renewable sources

The winery has built a photovoltaic system of 149 kW, used for self-consumption





Sustainability in the Cellar

Delivery of grapes

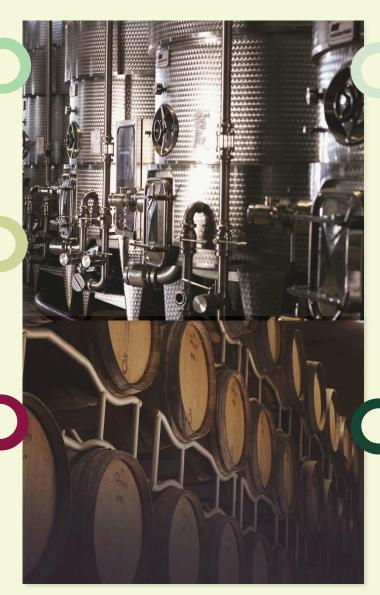
The choice of our grape suppliers is careful and judicious.
Each supplier signs a **self-declaration** to ensure the quality of its product

FSSC ISO22000

Any activity conducted in the winery adopts the **Food Quality and Safety System** Production, packaging and marketing of products

Traceability

We record all the arrivals of Uva raw material, the product transformations during the process, and any loading in the appropriate register of loading and unloading (vinification)



Cellar 4.0

The 4.0 technologies allow to reduce the wastes working in the optical of the «make, use and recycle» giving life to an economy of circular type. In the cellar were made the following investments 4.0, to date all working:

Depalletizer, Bottler
Nitrogen production plant, Cip Washing
Fermentation plant
Ageing plant (barricaia)
Tank automation

Efficiency of the processes

Optimization of the water resource in the cellar Sewage treatment plant for water disposal, waste reduction and separate collection



Raw materials in the cellar

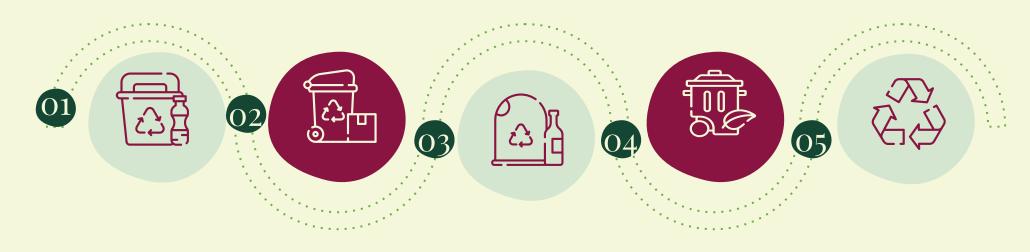
Packaging and **Packaging**

The choice of our raw material suppliers is careful and scrupulous, each type of supplier is selected according to numerous characteristics in order to ensure the reliability of production cycles in respect of the environment and safety

Oenological products for vinification **28,411.44** kg Oenological products cleaning plants 3765.5 kg Bottles **920.591,00 kg** Tappi **9281 kg** Capsule 2091 kg Etichette 22.063 kg Boxes and cartons 83,064 kg Pallet 11.075 kg



Waste



Plastic Paper **Glass**

Wood

Aluminium

4600 kg 12470 kg 18940 kg 200 Kg

250 kg



Final product transport



231.243
parts sold in the Middle
East

10.620
pieces sold in South
America

pieces sold in North America

8554
pieces sold in Europe







Landscape and Biodiversity



Aware and respectful of threatened and protected species

Within our estate are maintained **wooded** areas and hedges naturally present useful in order to increase the natural reproduction of native and migratory wild species.

The lands of Terre De La Custodia in fact fall within the *repopulation and capture* zone ZRC called «Terre De La Custodia» of about 500ha

It is not so rare to meet, strolling along our vineyards, four-legged guests!



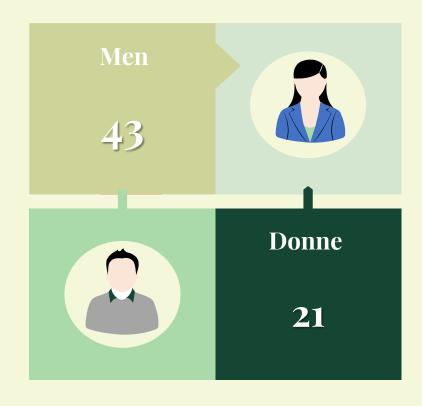
Economics and ethics

Culture and involvement

All the staff of Terre de la Custodia are adequately trained according to the legal requirements for compulsory training *according* to the type of work carried out in the company.

If it becomes necessary, Terre de la Custodia also provides «non-binding» *training courses* useful both, in order to involve staff and involve them in the new activities undertaken by the company, and to increase new knowledge.

Human Resources



Prevention and safety

Thanks to the figure of our *SPP*, the accident index is constantly monitored and the safety of workplaces is always guaranteed. Every employee is adequately equipped with all the PPE that are necessary, depending on whether he is a worker working in the vineyard or in the cellar.

Corporate welfare

Annually the company reserves to each employee TDC a corporate benefit



Social and Cultural Activities





Enhancement of the territory and cultural food and wine heritage

Terre de la custodia organizes weekly events in support of wine tourism such as **guided** tours of the winery, **tastings** and themed events, thanks to the collaboration of our sommelier and our events office.













