

B A R B E R A N I

VITICOLTORI DAL 1961

BIO-ORGANIC WINE

TECHNICAL BROCHURE



Vine Growers and Wine Artisans

The Barberani estate is located on the Orvieto-Todi road in the hills above Lake Corbara, where the River Tiber flows. This is the oldest and most prestigious production area of Orvieto wine, which is known as "Classico".

The company philosophy revolves around its territory, taking into account the distinctive morphological and microclimatic values of our rich wine producing area, agronomic experience, oenological expertise and embracing modern business strategies.

The company's agronomic choices are responsible for its high quality standards. They reflect the great continuity which plays a key part in its success.

Barberani takes tangible ecological measures which have made it extremely environmentally friendly. In a wine industry in which standardization and uniformity reign supreme, Barberani goes against the trend.

The Vineyards and the Winery

METICULOUS CARE SHINES
THROUGH IN THE DETAILS

The estate spans more than 100 hectares in total, 55 hectares of which are covered by specialized vineyards on hillsides with the unique microclimate of the Lake Corbara area.

Our company's land consists of soils of volcanic origins blended with sedimentary calcareous clay, the majority of which date back to the Eocene Epoch. These different types of soils are responsible for the complexity and singular mineral qualities of our wines. The abundance of micro-elements along with the limited fertility potential of the soil results in vines that are naturally predisposed to produce smaller amounts of grapes, without outside intervention. This contributes to yields of limited quantity - and exceptional quality.

Our wines are made exclusively with grapes grown in company-owned vineyards.

Complete respect is shown for the individual characteristics of the different types of grapes and a separate wine-making process takes place for each vineyard.

Niccolò Barberani is in charge of both the agronomic and the oenological areas

of wine making. He is ably assisted by the watchful Maurizio Castelli and the ever-present Luigi Barberani.

Our family directly oversees all spheres of the oenological processes: from the arrival of the grapes in the winery, to the wine-making itself, and to bottling.

The state-of-the-art technology in our winery is devoted to facilitating the natural evolution of the wine.

We painstakingly avoid all kinds of chemical treatment and only process our wines with natural means. Consequently, our products are magnificently spontaneous and wholesome, and therefore delightfully drinkable.

It is often quite rightly said that wine "*senses the place where it is born*". With this in mind, our grapes are made into wine in the company winery in the heart of the vineyards. The winery was built recently, incorporating an array of cutting-edge equipment that is regularly updated.

The company's current average annual output is approximately 350,000 bottles.

Organic and Sustainable Agriculture

PASSION, IDENTITY AND ECO-SUSTAINABILITY



Our company combines the principles of organic agriculture with our philosophy of bringing out the best of the land.

Under the regulations for organic agriculture and wine-making, there are strict rules that limit or prohibit the use of chemical products. We did not feel that the restrictions were having enough of an impact, so we have done far more than is actually required in cutting the use of copper and sulphur in the vineyards to half the legally permitted amounts, and while opting to utilize alternative natural products to boost the strength and durability of our vines. All of our efforts are focused on ensuring that every single grape grown is totally natural.

All of our fertilizers are organic and plant-based. In addition, in order to make the life cycles of our vines more integral and sustainable, we have chosen to reuse all of the organic waste materials from the vines to enrich and fertilize the soil. Vine shoots, grape stalks and all of the vegetation that grows in our vineyards – from grass to offcuts from pruning – go back into the soil.

Care for the health of our plants is a cornerstone of our output. Our approach is based on the controlled growth of grass, which significantly increases the organic content of the soil and creates healthy, natural competition with the vines, thus completely naturally governing the strength of the plants.

Every year we sow a mix of seeds that we hand-select to enrich and “vitalize” the soil on our estate. It is a completely natural way

of adding organic substances and structure to the soil, while also helping to stop erosion and increasing the variety in our ecosystem.

We believe that it is crucially important to carry out totally natural procedures in the vineyards, with no chemical products used whatsoever. This is seen in everything from pruning and burying offcuts to the ancient technique of utilizing green manure with cereals, organic fertilizers and plant-based treatments.

We continue to believe that wine genuinely embodies its birthplace and is an essential accompaniment to fine cuisine as well as the most wonderful moments in life we share with one another. Our love for, and commitment to this expression, takes concrete form in our agricultural approach, which strives for complete environmental sustainability. Additionally, multi-purpose agricultural equipment, the experimental use of new weather forecasting and plant protection technologies all play a key part in reducing the amount of intervention taken in the field in the agricultural season.

“Ever since the 1980s, we have chosen to turn to account the identity of our land by espousing traditional organic agricultural principles. For centuries, this land was self-sufficient and managed in such a way that it replenished itself with its own resources. By taking an organic approach in all of the vineyards, the olive groves and the estate as a whole, we can preserve the original vitality of the local soil. As a result, our wines have an increasingly pronounced and perceptible identity all of their own.”
N.B.

Reforestation

Within the 100 or so hectares, spanning the estate, the company nurtures and maintains 30 hectares of high forest around Villa Monticelli. With the same dedication shown to the vines, we oversee the growth, ageing and replacement of every single plant, year after year.

The surface area covered ensures that more than 240 tonnes of carbon dioxide is harnessed every 12 months.

The forest acts as a green lung that is home to animals that are now rare in the local area, encouraging hedgehogs, porcupines and badgers, as well as all of the other usual Italian woodland creatures, including squirrels and wild boars to thrive.

Hawks and buzzards take to the air from the foliage of the trees, while the silhouettes of barn owls, long-eared owls and tawny owls can be seen against the night sky in the moonlight. Our vineyards are surrounded by an incredibly vast and balanced ecosystem in the middle of the marvelous *Tiber River Park*.

On our estate, humans have become fully integrated with nature while managing to produce one of the most beloved of the world's nectars and while showing complete respect for the environment, the people who live in it and the biological rhythms of Mother Nature.



Cutting Electricity Use

Thanks to patented Italian Aliant technology, the roof structure in our winery amplifies the natural sunlight from outdoors, giving outstanding diffused lighting during the day that allows us to make huge savings on the electricity used for illumination.

Approximately 95% of the lighting in our winery comes exclusively from naturally amplified sunlight.

Furthermore, the majority of the building is cooled by allowing cold air from outside into the rooms at night, thus allowing us to minimize even further the need for and use of electricity.

Use and Recycling of Spring Water

In our winery, we only use water from the two natural springs on our estate: the "Pulicchio" and "Villa Monticelli" springs.

The water is filtered and softened before use, and after it has been utilized, it is purified and released back into the natural environment around Lake Corbara.

Research and Development

In 2013, a joint project by our company and the Faculty of Agriculture from Tuscia University in Viterbo beat out all other Italian companies, and came in first place in a national competition launched by the Italian Ministry of Agricultural and Forestry Policies through the Monitor of Young Entrepreneurialism in Agriculture (OIGA). The initiative focused on support for innovative research and development projects proposed by young agriculture entrepreneurs in partnership with research organizations.

In January 2014, an ambitious two-year research project was begun to bring about the best of sustainability and eco-compatibility in the agricultural business world using targeted, innovative research tools.

Today we use ground-breaking vine protection technology together with conventional organic systems for supervised pest control, in order to restrict the use of plant protection products and in some cases, completely replacing them with new defense strategies.

Firstly, we installed biosensors (electronic strips) in the vineyards for early detection of infection through interception and identification of volatile markers.

Next, we trial studied the use of active oxygen as a means of destroying hibernating inocula. This involved a mobile system to generate and apply the oxygen gas on the soil and between the rows of vines. The gas was employed to treat all of the residual vegetation and eliminate the main hibernating inocula in the spring and throughout the season.

Active oxygen is also used in the production of sulphite-free wine to destroy the mycotoxins on the fruit and to sanitize all of the instruments used in the wine making and aging processes.

These technologies have *zero impact on the environment* because the only thing used is plain oxygen, which is already present in the air.

Together with the technicians from Tuscia University in Viterbo, we will assess the results of the trial and we hope that we will soon be able to establish a new vineyard treatment protocol that will mark an incredible, revolutionary step towards sustainability in vine growing and agriculture in general.



Harvesting by Hand

All management procedures in our vineyards are strictly carried out by hand.

Decisions about harvesting are made using in-depth analyses of the sensory properties of the grapes and our vast knowledge of the soil and the typical environmental patterns around Lake Corbara.

The grapes are all picked by hand, enabling us to meticulously select the very best bunches.

Qualitative selection starts directly in the vineyards, where our staff use their expert harvesting skills to avoid damaging the foliage of the plants and prevent gathering the insects and animals typically found on vines.

The careful harvesting process means that there is no need to use sulphites or the enzymes normally utilized with mechanical grape harvesters.

The process is one of the founding principles of our production philosophy and it offers a further guarantee of the outstanding quality and naturalness of the wines.

As soon as they have been picked, the grapes are taken to the winery in containers that hold approximately 200 kg each, so that their skins are not broken and their exceptional quality is not compromised.

Making our Natural Wines

Niccolò Barberani personally takes charge of all of the wine-making processes in our winery in Cerreto, near Baschi.

The grapes arrive in the collection area no more than 20 minutes after they are picked and the stalks are carefully removed in their entirety, so that we can work with *nothing but the grapes themselves*. This means that there is absolutely no risk of contamination from the green parts of the plant (both stalks and leaves), which can introduce unwanted substances into the must.

Thanks to our painstaking care in each of the different steps of the wine-making processes, the entirety of the must that we produce is all of exceptionally high quality, from the *"free-run juice"* to the third pressing.

In the winery, we strive to preserve the remarkable quality of the fruit that is manually selected in the vineyards.

We carry out cold maceration of the grapes at temperatures close to 0°C in order to naturally bring out the aromas of the must, taking great care not to damage the skins. This means that there is no need to use chemical products or industrial aids in the pre-fermentation phase.

All of the fermentation stages are managed and controlled meticulously on a daily basis in order to minimize the use of sulphites.

We use the lowest possible amount of sulphites during the wine-making processes in order to reduce the risk of allergic reactions in consumers, as well as unpleasant headaches and complaints involving the digestive system.

Throughout the wine-making process, we only use *"physical procedures"* and we carefully avoid the utilization of chemical substances in order to preserve the natural qualities of our wines and their superb wholesomeness, appeal and drinkability.

The same methods were used by the Etruscans more than 2,000 years ago in their underground wineries that were carved out of the tuffaceous rock in the town of Orvieto. The oenological know-how of the time was incredibly advanced: fermentation took place in the first underground floor of the winery at a controlled temperature of approximately 18°C. This was followed by decantation for refrigeration on the second floor, which was cooler at approximately 8°C. The wine was then stored on the third and final floor underground. It goes without saying that it was all transferred through precipitation!

We use ancient, natural techniques that have to be managed with care and experience. It is an exceptional, efficient way of making completely natural wine.



Wine-Making with “No Added Sulphites”

Using minimal amounts of sulphites during wine-making processes has been a standard, consolidated practice in modern oenology for years.

Nonetheless, even in minimal quantities they can cause severe allergic reactions and unsettling physical reactions of various kinds, including some serious conditions.

Therefore, an idea and plan emerged to completely do away with the use of sulphites in our entire wine-making process in order to produce a *wine with no added sulphites* that is uniquely pleasant, elegant and drinkable.

Since 2006, our winery's oenologist and production director Niccolò Barberani has been carrying out attentive, ongoing experimental research to achieve this goal, using all of our company's know-how, our 50 years of experience in the vineyards and all of the cutting-edge winery technology at our disposal.

The dream of making wine with no added sulphites has now become a reality and we have called it VINOSO. It is a wine that has broken the rules of traditional “*oenological science*” and has completely changed the game. VINOSO is a revolutionary discovery not only

because it is a wine free of added sulphites, but the wine is truly delightful and surprisingly long-lasting.

VINOSO Umbria IGT white and red wines are made with the very finest grapes, which are carefully selected on the vine and always strictly harvested by hand. Grechetto and Trebbiano Procanico grapes are used for the white wine and Sangiovese Grosso and Montepulciano for the red.

The special method that we use starts with meticulous disinfection of the grapes and all of the winery equipment in a process involving active oxygen. No artificial chemical products are used. Active oxygen is now acknowledged to be the most effective and safe agent to use in disinfection and sanitizing processes for food and drinks.

It is approved by the EFSA and the Italian Ministry of Health and it is allowed under the HACCP and organic systems. The technique was developed thanks to our partnership with the Department for Innovation in Biological, Agricultural, Food and Forestry Systems (D.I.B.A.F.) at Tuscia University.

Also fundamentally important to the process are the management of the fermentation, the decantation and the entirely depletion-based ageing processes, all personally overseen by the oenologist Niccolò Barberani.

Ripe Grechetto and Montepulciano grapes are very high in tannins. This means that the must has a very high content of anti-oxidant substances even in the pre-fermentation period. During production, the wine undergoes nothing but natural processing, through temperature control systems.

A decisive role in the success of the project is played by maceration of the lees in a vat for at least six months.

"Sulphite-free wines" are thus making a name for themselves on the market and proving popular, because they strongly and authentically represent their place of origin. They are highly regarded because their aromas and colors come from the rugged hills of Orvieto and because their flavor paints a thousand pictures of the unique, inimitable beauty of our local region.

Botrytis Cinerea – Noble Rot


“WHO DOES NOT KNOW THE
PROFOUND JOY THAT WINE CAN
GIVE TO MAN; TO ANYONE WHO
WANTS TO SILENCE THEIR REGRETS,
TO RECALL A MEMORY, TO LIVE
AN ARDENT, AUTHENTIC SECOND
YOUTH.”

C. Baudelaire

On autumn mornings, a thick fog envelops the Orvieto Classico vineyards. In these singular microclimatic conditions, the grapes are gradually infected by a distinctive kind of fungus called “*Botrytis cinerea*”, which develops on their skin.

The microscopic fungus is normally malevolent, in which case it is known as “botrytis bunch rot” or “grey mould”. However, it may turn into “*noble rot*” in certain unique conditions that cannot be found elsewhere. It is necessary for moisture in the night and morning to alternate with mild, well-ventilated weather in the afternoon.

The distinctive fungus forms microscopic holes in the skin of the grapes, so it tends to gradually dehydrate them, concentrating their



sugar content and acidity. *“Botrytis cinerea”* enriches and enhances the sensory profile of wine, endowing it with unique, unmistakable aromas and flavors.

During the harvest, our staff is highly proficient at selecting only the grapes that show the clearest signs of *“noble rot”* and leaving the ones that are not yet ready on the vines. This means that it takes at least five or six separate harvests between October and December to pick all of the fruit.

The must that is produced is particularly dense, rich and fragrant. The subsequent fermentation takes place slowly and constantly for an extended period and it comes to a stop naturally.

“At my first Vinitaly exhibition, my father Luigi presented our first Calcaia, the 1986 vintage, and this Orvieto DOC Classico with noble rot was an instant sensation. Luigi Veronelli himself came over to congratulate him. I remember it as if it were yesterday. Our Calcaia soon began to be seen as a benchmark product for the leading companies and wine makers in Italy. When I was young, I was lucky enough to experience the exciting early days of this great wine that is the epitome of quintessential qualities and terroir in everyone’s eyes.”

B.Barberani