

# ARE GERMAN WINES THE WINNERS OF GLOBAL WARMING?

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*So far in 2022, Germany is experiencing the hottest and, above all, driest summer since weather records began. Weeks without any rain, forest fires, historically low river levels and shallow-rooted plants withered - all the result of 40 days at over 30°C. Under these conditions, it seems a little cynical to call Germany a possible 'winner of global warming'. But climate is a long-term matter, and many people - German winegrowers included - quickly forget that only a year ago, in early summer 2021, they had complained about fungal pressure in the vineyards caused by high rainfall and humidity.*

HEAT AND DROUGHT ARE CAUSING TROUBLE FOR SMALL SOUTH-FACING VINEYARDS IN THE MOSEL VALLEY



## GERMANY CLIMATE

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HARVESTING CHARDONNAY GRAPES BY HAND IN RHEINHESSEN. THIS IS ONE OF THE MOST PROMISING VARIETIES

So what has made German viticulture special over the last 20 years? Has there been a transformation from cool to ideal conditions for winegrowing? How have preferences for grape varieties changed? Five German wineries and their wines offer some answers to these questions.

### THE STORY SO FAR

Winegrowing has been practised in Germany for at least 2,000 years. For a long time situated on the northern border of winegrowing, the climatic situation shaped both the choice of cultivation areas and legal regulations. Viticulture in Germany has always involved a struggle to achieve ripeness, which is why the most famous sites are steep and south-facing, to absorb as much sunlight and warmth as possible. This is also why the German Prädikatswein system of the 20<sup>th</sup> century was solely based on the sugar content of the grapes. The riper, i.e. the higher the sugar content of the must, the better the quality of the wine.

Perhaps it is no coincidence that in an era of global warming, the new German wine law has taken a turn in its philosophy – moving away from the dictates of grape ripeness and towards the Burgundian pyramid of terroir qualities with regional, village and single vineyard wines.

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### GERMANY'S WINE INDUSTRY

Germany has 13 wine regions, mainly in the south-west of the country, among which Rheinhessen and the Palatinate have the largest vineyard acreage. With 103,000 ha under vine, the country ranks 14<sup>th</sup> worldwide, but has seen its area increase by 8.4% in the last 30 years. The most widely grown grape varieties are Riesling (stable acreage), Pinot Noir (significantly increasing) and Müller-Thurgau (significantly decreasing). Two thirds of the grape varieties remain white, while the red wine boom of the 2000s has weakened a little in recent years. The biggest winners over the last two decades are Pinot Blanc and Pinot Gris, both of which have doubled their area under vine. What isn't yet strongly reflected in the statistics are experiments with 'southern' grape varieties, which are primarily evident among red grapes. Thanks to global warming, Merlot has now statistically reached 20th position (790 ha country-wide), and Cabernet-Sauvignon 22nd. Steep-slope projects, co-financed by the government, have seen grape varieties such as Nero d'Avola and Tannat be put into the ground. German Syrah, too, has entered the winegrowing world with some remarkable examples. Another trend is that of newly propagated fungus-resistant grape varieties (hybrids) which are also gaining considerable traction.

EVENING LIGHT ON KIRCHENSTÜCK IN PALATINATE, PROBABLY THE MOST PRESTIGIOUS SITE FOR DRY RIESLING IN ALL OF GERMANY



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By contrast, grape varieties such as Müller-Thurgau, Kerner and Bacchus, which made Germany the world record-holder in terms of yield per hectare, have finally lost ground. The varieties were not only notorious mass producers, they were also marked by thin skins and early ripening. As the mercury soars (and customers become more demanding), none of these characteristics are particularly advantageous.

### FEELING THE HEAT

When referring to the effects of global warming on German viticulture, it is helpful to first look at the corresponding data – in this case using the example of the Franconian wine metropolis of Würzburg.

The diagram clearly shows that you can actually distinguish between two periods in the development of temperatures. From the Second World War until about 1987, there was no increase in annual mean temperatures at all. Only by the end of the 1980s did a noticeable rise begin. Since then, it has become almost 2°C warmer on average per year. It sometimes seems that people often don't realise that these 2°C are not limited to a one-time event. In fact (and in simple terms), it means 2°C more every day and every night, which is a dramatic amount. Moreover, the rising temperatures apply to every single month of the year. July and August, when the grapes ripen, show a particularly strong increase. Does this also mean that it has become drier in Germany? Currently, this does not tally up with the numbers. Only April and June show significant declines. In midsummer, on the other hand, there is just as much rainfall as there was in the 1950s. However, weather periods in general, and thus also dry spells, are becoming longer and longer.

Above all, one thing has changed and it is connected with the rise in temperatures: higher air temperatures mean higher absorption capacity of moisture. Only when the air is saturated with water does rainfall start, in summer more

A SIGN OF GLOBAL WARMING - A LIZARD IN THE MOSEL VALLE



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and more frequently as heavy rain. The soil cannot absorb these floods quickly and the water is dissipated and ultimately hardly benefits the plants. So although the amount of precipitation has remained virtually unchanged, the effects of a thunderstorm versus steady rain are highly different.

### THE IMPACT ON VITICULTURE

After the 'lean' wine years of the 1960s and 1970s, ripeness (with the exception of 2010, the only 'cold' year of the 21st century) is rarely a problem for German winegrowing anymore. This does not only apply to the micro-climatically favoured locations, but to practically the entire country. It is no wonder that many regional winegrowing associations see Germany as a winner of global warming.

Apart from climate, other factors have contributed to the enormous quality upswing in German winegrowing over the last two decades.

One is the Geisenheim University of Applied Sciences in the Rheingau, a training institution where almost all young winemakers from ambitious wineries meet. This has ensured that the latest scientific findings in viticulture and oenology, boosted by international exchanges, have found their way into Germany's top wine estates. The choice of high-quality grape varieties (especially Riesling and Pinot Noir), yield reduction, harvesting of healthy fruit, wild ferments, ageing in traditional wooden barrels and a more hands-off approach to winemaking – these are all aspects of the new generation's toolbox.

Additionally, an increasing proportion of wine enthusiasts are prepared to pay more for high-quality products – and that is no mean revolution in notoriously stingy Germany. All in all, it is fair to say that there have never been as many good wines in Germany as there are at the moment.

HARVESTING RIESLING GRAPES  
IN THE PALATINATE



PINOT NOIR GRAPES, READY FOR HARVEST  
IN THE FIRST WEEK OF SEPTEMBER 2022





### Mohr/Rheingau

To the west of Frankfurt lies the Rheingau, perhaps Germany's most important wine region historically – although in terms of acreage it only ranks 8th. Here, Riesling is the uncrowned king with 78% of area under vine, followed by the famous Spätburgunder – aka Pinot noir – from Assmannshausen. These two grape varieties make up the majority of the Mohr winery's ten hectares. Located in the far west beyond the Rhine bend, Jochen Neher and his wife Saynur have been farming their certified vineyards organically for almost a decade. On slopes like the Assmannshäuser Hölleberg in particular, with a gradient of up to 70%, this approach implies a lot of manual work. The yields are low and the vines up to 80 years old – the Mohr winery is an uncompromising quality grower.

In the municipal areas of Lorch and Assmannshausen vines grow on various slate formations interspersed with quartzite veins. Not a single square metre is flat here. The Neher's produce a Großes Gewächs Riesling from each of the Lorch vineyards Krone, Schlossberg and Bodental-Steinberg. While the Hölleberg is traditionally reserved for Pinot Noir, there is also an orange wine made from Pinot Blanc in addition to a high-quality sparkler.

JOCHEN NEHER OF WEINDUT MOHR IN ONE OF HIS STEEP RHEINGAU VINEYARDS

