

ISRAEL WINE REGIONS

GEOGRAPHY & TOPOGRAPHY

Israel is an Eastern Mediterranean country, part of what some will call the Levant and others, the Near East. It is a sliver of a country bordered by the Mediterranean Sea to the west, and surrounded by Lebanon, Syria, Jordan and Egypt to the north, west and south.

Israel is a land of 20,770 square kilometers (7,992 sq miles). It stretches a mere 424 kilometers (263 miles) from north to south. The population is 9.7 million. Ancient names like Galilee, Nazareth, and Jerusalem reek with Biblical history. There are also the modern cities of Tel Aviv and Haifa built on the shores of the Mediterranean Sea, which are fruits of modern Israel. The country boasts mountains like Mount Hermon on the Golan Heights, Mount Meron in the Upper Galilee and the Dead Sea, the lowest point on earth.

The country may be divided into three distinct parts. There is the coastal plain, the hilly or mountainous region that runs down the spine of the country and the Jordan Rift Valley, which is part of the Syrian – East African Rift. The fertile part of the country has a standard Mediterranean climate: long, hot, dry summers and short, cool, rainy winters. There will be occasional winter snow on the higher elevations, particularly the Golan Heights, Upper Galilee and Judean Hills. There is also a semi-arid area and the Negev Desert, which covers more than half the country.

The Mediterranean Sea is the most important element in Israel's climate. The winds, rain and humidity usually come from the west. Rain is limited to the winter months. Annual precipitation ranges from 100 mm. in the south to 1,100 mm. in the north. Average annual temperatures are 15°C to 20°C. In the coldest month of January, the average temperatures range from 5 – 12°C and in July/August 22-33°C.

VITICULTURE

Israel is famous for its agriculture. Israeli farmers are leaders in innovations and new technology, always pushing the frontiers of knowledge and challenging existing pre-conceptions. This technology and drive is also present amongst the country's wine growers.

Israeli vineyards tend to be in an ongoing battle with the elements. On one side there is a chronic lack of water and what there is can be very expensive. Israel's once proud citrus industry is a shadow of what it once was, as the country has reverted to hi-tec instead of agriculture.



However, vineyards use less water than many other fruit crops. This has been a significant factor in the decision by farmers to plant new vineyards. Secondly, Israel in terms of sun hours is like North Africa. The coastal area can be hot and humid. The main vineyards of Israel lie at a latitude between 31.5° to just over 33°N.

This is why many of the newer vineyards are at higher altitudes where temperatures are cooler, allowing a longer growing season. The fastest growing regions in terms of new vineyards being planted are the Judean Foothills, Judean Hills, Upper Galilee and Golan Heights. Many of these vineyards rise from 300 meters to up to 1,000 meters above sea level. However the Israeli sun and combination of hills and mountainous areas with soils of limestone, terra rossa and volcanic tuff, make this small country a winemaking paradise.

Due to the total lack of rain during the growing season, drip feed irrigation is essential. This was pioneered by the Israelis in the early 1960's and is now used in agriculture all over the world. Precipitation is therefore is not important for the vine's growth, but rainwater absorption in the soil is important as are the storage reservoirs, which need to be filled by the winter rains. These days more and more wineries are experimenting with dry farming.

The preferred aspect of an Israeli vineyard is a north facing slope with vines planted east to west. The cooling Mediterranean winds from the west, are then able to penetrate the rows of vines. This has a cooling effect, provides ventilation, which reduces humidity and brings down average temperatures. Most vineyards planted in the last twenty years conform to a standard. There are 1.5 meters between vines and 3 meters between rows. The usual vineyard density is 2,220 vines per hectare. There is a distinct preference for mechanical harvesting. This means a vineyard may be night harvested in a few hours, at the optimum time, and brought to the winery in the cool temperatures of the early morning. Though it is true more wineries are insisting on hand harvesting than before.

Canopy management is crucial in a hot country like Israel. It is important to reduce the vigor of the vines, but protect the grapes from over exposure. The objective is to let the light in, but provide protection from the sun. Most vineyards are cordon spur pruned in a VSP – vertical shoot position. However some of the older vineyards are planted in the goblet, bush vine format. In the Judean Hills some of the vineyards are planted in stone lined terraces. Some of the older vineyards don't need irrigation. The roots of the vines have dug deep into the stony soil over the years, to receive the water required. These vines are hand harvested.

Bud break is normally from the beginning to mid-March and flowering in the two weeks in the middle of April. The main hazard is not frost or hail in the spring, or rain during the harvest, but the dreaded



hamsin. These are warm winds that come from the Arabian Desert in the south east, drastically raising temperatures, sometimes up to 40 °C. The vines simply close down in order to survive. Another unfortunate hazard unique to this area, is war.

In 2006 when rockets rained into the Galilee in the Second Lebanon War, winemakers were not able to enter the vineyards in the crucial six weeks before harvest. Fortunately there was a ceasefire in time to save the harvest in the Upper Galilee.

Harvesting usually starts in mid to late July. The muscats and white grapes used for making sparkling wines are the first to be harvested. However the bulk of the harvest is from August, September to the early part of October. In a few instances the last Cabernet Sauvignon grapes in the northern Golan Heights may be harvested even in the first week of November. So Israel has a very long harvest period.

The most technically advanced viticulture is practiced on the Golan Heights by the Golan Heights Winery. Here there are meteorological stations strategically placed in the vineyards providing information on leaf wetness, soil temperature, humidity, temperature reporting back to the winery by the second. They have technology there which would interest any winery in the world and a data base of information going back decades. This is where technology and agriculture meet to provide the viticulturists with the maximum information possible.

Israelis are always keen to throw convention aside and attempt the impossible. The planting of vineyards in the Negev at Ramat Arad, Kadesh Barnea and Mitzpe Ramon were perfect examples of 'making the desert bloom'. There were originally trials using saline water drawn from deep, ancient, underground wells more than 650 meters below ground. Other, more successful experiments have involved the use of treated sewage water from a nearby army base. Israeli efforts to grow wine grapes in the desert are being watched with interest by other hot wine producing countries.

The concept of organic or self-sustainable vineyards is a growing trend in Israel. Many wineries now grow a cover crop between the rows to encourage bio-diversity in the vineyard. The Golan Heights Winery have gone sustainable and are certified by 'Lodi Rules', Tzora Vineyards are certified by Fair'N Green. Tabor Winery has developed ecological vineyards with the SPNI and Galil Mountain are also pioneers of sustainability. They use recycled Nespresso capsules in making their own compost. Harashim Winery is biodynamic and Lotem Winery organic. There are quite a few organically grown vineyards.

Israel, like many long thin countries, has a surprising number of microclimates. It is possible to ski in the morning on Mount Hermon in the north, and in the afternoon to go scuba diving to see the Coral Reef in the Red Sea resort of Eilat.



Likewise, it is possible to be in the central mountains at 1,000 meters altitude, and a short time afterward to fall away to the Judean Desert, where the Dead Sea, the lowest point on earth at 400 meters below sea level, is situated.

One can visit the hot, humid Sea of Galilee, where you will be surrounded by date palms and banana trees. Climb ten minutes on to the Golan Heights and cool climate produce like apples, pears and wine grapes are grown. It is a country of variety, extremes, but all on a small scale. Israel would comfortably fit into Wales or New Jersey.

OFFICIAL WINE REGIONS

The official Israeli wine regions were decided in the mid-1970's, long before the Israel wine industry took its current shape. The country is divided into five regions: **Galilee, Shomron, Samson, Judean Hills** and the **Negev**. The Shomron starts from the Mount Carmel range on the coast, leading to the Central Mountains area. The Samson Region represents the central coastal plain and the Judean *Shephela*. At the dawn of the Israeli wine industry, most of the vines were planted in the Shomron and Samson regions, nearer the coast. They formed the basis of Israeli wine for a hundred years or so. With the quality revolution, new vineyards were planted in the cooler areas of the Golan Heights, Upper Galilee, Judean Foothills and Judean Hills. These are proving to be Israel's best quality wine producing areas, where most of the new vineyards are being planted.

These five regions are registered by the TTB in America and the European Community. So currently, these are the regions that will appear on the bottles which are exported. The vast majority of Israeli wines marketed abroad come under the Judean Hills or Galilee appellation. The Galilee in this instance is made up of three sub regions: the Upper Galilee, Lower Galilee and Golan Heights. The Golan Heights is really a different geographical region to the Galilee – but in wine law, it is registered as a sub region of the Galilee, but for overseas markets only.

IPEVO WINE MAP

IPEVO is the profession association of winemakers and viticulturists, which was founded in 2012. In 2020 they produced a wine map dividing the country into the following fifteen regions:

GALILEE:	Upper Galilee West, Upper Galilee East, Lower Galilee
GOLAN HEIGHTS:	Upper Golan, Lower Golan
COASTAL:	Zichron Ya'acov – Hanadiv Valley, Judean Coast
CENTRAL MOUNTAINS:	Mt. Gilboa, Shomron Hills, Judean Hills, Negev Judea
JUDEA:	Judean Foothills, Lachish
NEGEV:	Ramat Arad, Mitzpe Ramon



These are the regional names in use today by wine professionals in Israel.

THE MAIN WINE REGIONS

Most of Israel's quality wines come from the following regions:

Upper Galilee, Galilee

The Galilee, Galil in Hebrew, is the most well-known appellation, situated in the north of Israel. Most of the quality wine comes from the Upper Galilee East. These are high altitude, cooler climate vineyards planted from the mid 1990's onwards. The Upper Galilee is a mountainous area of forests, plunging peaks and stony ridges. It is Israel's most beautiful vineyard region. The soils are heavy, but well drained. They tend to be a mixture of volcanic, gravel and terra rossa soils. The elevations range from 350 to 800 meters above sea level. The annual precipitation in the Upper Galilee is from 800-1,000 mm. Winter temperatures can be from 0-15 °C whilst in the summer the range is from 12-30 °C.

The first wine with Galilee mentioned on the back label was the Carmel Special Reserve 1979. Dalton Winery, founded in 1995, was the pioneer in modern times.

Upper Golan, Golan Heights

This appellation appears on labels only in Israel. The Golan is a volcanic plateau rising to 1,200 meters above sea level. The area benefits from cool breezes from the snow covered Mount Hermon. The better wines come from the Upper Golan, which included part of the Central Golan at 600 – 700 meters altitude, and the Northern Golan, which rises from 750 to 1,200 meters. The soil is well-drained, volcanic tuff with black basalt stone. Annual rainfall is 800 – 1,000 mm.

The first vineyards were planted on the Golan in 1976. The Golan Heights Winery was founded in 1983 and the Yarden Sauvignon Blanc 1983 was the first wine that brought attention to the Golan Heights.

Zichron – Hanadiv Valley, Coastal Plain



This is Israel's most traditional wine growing region which was first planted by Baron Edmond de Rothschild in the 1880's. The main concentration of vineyards is in the valleys surrounding the winery towns of Zichron Ya'acov and Binyamina, benefiting from the southern Carmel Mountain range and cooling breezes off the Mediterranean Sea. Elevations rise from 0 to 150 meters above sea level. Soils vary from calcareous clay, terra rossa, limestone and chalk. The climate is typically Mediterranean. Annual precipitation is 400 – 600 mm.

The first winery in this region was Carmel Winery's Zichron Ya'akov Cellars founded in 1892. Yet it took until the early 2000's when the region became known for individual wines, like Old Vine Carignans, rather than volume wines.

Judean Foothills, Judea

The Judean Foothills is a fast-growing region in terms of newly planted vineyards and new start-up wineries. These are the rolling hills with limestone soils and clay loams, which may be experienced on the drive to Jerusalem. Some vineyards have deep chalky soils, which look almost white. Elevations range from 50 to 300 meters above sea level and average rainfall is up to 500 mm a year. Winter temperatures are from 5 to 20 °C, whilst those in the summer range from say 18 to 30 °C.

The largest winery in this region is Barkan at Hulda. The oldest is the Latroun Monastery founded in 1890.

Judean Hills, Central Mountains

The Judean Hills is a quality region rising in the Jerusalem corridor from a 400 meter elevation up to 1,000 meters. It includes the mountains north of Jerusalem, through to Gush Etzion, south of Jerusalem. Warm days and cool nighttime temperature characterize the region which in places is 400 to 1,000 meters above sea level. The soils are thin, shallow terra rossa, on a deep bedrock of limestone. The higher mountains receive snow in the winter. Annual precipitation is 500 mm. Average winter temperatures are 0-18 °C, whilst summer temperatures can rise from 15 to 30 °C.

The main pioneers of the region are Domaine du Castel (est. 1992) and Tzora Vineyards (est. 1993.) The first wine to put this appellation on the label was the Castel Grand Vin 1992. (They wrote Haut Judée in French.)

Mitzpe Ramon, Negev



The Negev is a desert region that makes up half the country. The main vineyard area is at Mitzpe Ramon, 800 meters above sea level. Temperatures range from very hot during the day (15-40 °C in the summer)

to cooler evenings and very cold nights. The vineyards are sometimes shrouded in mists during the morning hours. The dryness and lack of humidity keep diseases to a minimum.

Carmel planted the first vineyard at Ramat Arad in 1998. The first wine branded as a Negev wine was the Ramat Arad Merlot 1992.

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