AVA Petition. New, with minor overlapping.

Petitioner: Steven Burgess, President, Burgess Cellars, Inc. (est. 1972) on behalf of many growers in the area.

AVA name: Crystal Springs of the Napa Valley

Size: 4000 acres +/-, with over 30 historic and new vineyards consisting of 230 acres +/- vine-acres.

(1) Name evidence:
(i) Name relevancy and usage overview: The name “Crystal Springs” is used to describe the West-facing hillside of the Vaca Range where the Crystal Springs neighborhood exists. The most common type of spring, is a “gravity spring,” which is a spring on a hillside. Springs flow from the entire Vaca Range, and this area is has many due to the topography. Central to the area is the venerable legend, but retired Crystal Springs Rural Health Retreat which dates back to the 1800s. It is now the Saint Helena Hospital on which the Crystal Springs Resort still stands. There are two roads, Crystal Springs Road and North Fork Crystal Springs Road that are active, County roads. One of the water utilities, Saint Helena Hospital, uses spring water, and a few wineries, vineyards, and residences are supplied by springs. Wildlife and fauna are nourished by the springs too.

(ii) Name usage—historical: Numerous “crystal springs” exist on the hillsides within the boundaries of Crystal Springs AVA. Ever since the 1800s, travelers and health enthusiasts have come to what is now the Saint Helena Hospital, but was historically named “Crystal Springs.” Dr. Kellogg and others founded the Rural Health Retreat in the area, where clean air above the frost, proper diet, hygiene, and exercise were promoted. It is said that Robert Louis Stevenson was lured to the Napa Valley because of this, to help alleviate his symptoms of Tuberculosis. Springs number in the dozens on the hillsides, and many are shown on the USGS maps. Springs are numerous along this section of the Vaca range, from Mount Saint Helena to Soda Springs. Crystal Springs Road is roughly along the bottom of the proposed AVA, and the North Fork Crystal Springs Road passes along and through the proposed AVA. In the appendix are examples of historical and current use, with buildings, roads, neighborhood, and exclusive homes. Viticulture goes back to circa 1870. 1884 was when the Rossinis first purchased what became Souverain, and is now Burgess. Pestoni established vineyards in the 1890s in the region, and now there are many vintners sourcing fruit from Crystal Springs area.

(iii) Name usage—current & future: Non-wine industry use includes bicycle touring maps, neighborhood organizations known as “Crystal Springs” in the newspaper, and the aforementioned roads and buildings named “Crystal Springs.” Exclusive real estate and wineries are in or on Crystal Springs, and it is seen in the listings. Current wine uses include multiple wineries that source fruit from the general area. Some wineries already use the term “Crystal Springs” on the labels, websites, and wine lists to identify the source. In appendix, usage from vintners Brasswood, DANA (VASO,) and Salvestrin are documented.
(2) Boundary Evidence:

Logic applies to each border, as the focus and integrity of Crystal Springs of the Napa Valley AVA is paramount. Crystal Springs AVA is an all-hillside AVA and along a portion of the West face of the Vaca range with generally uniform exposure, West-Southwest. The uniformity of conditions within the boundaries is significant, and the differences from adjacent AVAs is even more significant. Vineyards within the proposed AVA do not require frost protection, whereas adjacent Calistoga, Saint Helena, and Howell Mountain AVAs do require frost protection within their boundaries. Logic, reason, and climate establish this AVA.

Crystal Springs AVA ranges from 400’ to 1400’ elevation, which meets borders of existing AVAs. Most importantly, these elevations fill the gap between the highly-respected Howell Mountain AVA and Saint Helena AVAs, differentiating vineyards, grape qualities, location, and clearing up massive confusion for the consumer.

The bounds on each end are logical too, Old Howell Mountain Road on the South and the boundary of Calistoga AVA on the North. The logic for Old Howell Mountain Road as a boundary is because the physical “plane” of the proposed AVA is generally SW in exposure, Old Howell Mountain Road is the edge of the plane, where beyond it, the exposure becomes more Easterly, even Northeasterly. The logic for the other boundary is to be adjacent to the Calistoga AVA, yet continue up to 1400’ instead of terminating mid-hillside at 880’. This helps consumers understand where the produce originates from and what conditions they were grown under.

There is one “pocket” in Crystal Springs AVA, known as Crestmont, exceeding 1400’, so this region is excluded as it should be part of Howell Mountain AVA, although few acres are in this pocket anyway, as it is primarily residential or rocky outcroppings.

400’ is the meeting of the mountains and the valley floor in this region, and the edge of existing and accepted AVAs along much of the borders. Below 400’ is the valley floor, where cold air pools and frost is more common. Hillsides have shallow soils too, as the natural weathering processes have moved the soils to the valley floor over time.

1400’ is where another accepted AVA begins, the Howell Mountain AVA. An inversion layer exists at about this altitude, where they experience comparatively warmer nights and cooler days than the hillsides and valley floor, which receive cooling from the marine layer that flows in from the Pacific Ocean. Howell Mountain is “above the fog.” The moderate temperatures of Howell Mountain AVA are different that the 50 degree diurnal temperature range found on the hillside. Of upmost importance, Spring and Fall frosts become problematic at 1400’ and above as temperature drops about 3 to 6 degrees for every 1000’ feet of elevation. The adiabatic cooling, or
elevation cooling is the physical principle behind this phenomena. From 400 to 1400 feet, the adiabatic cooling is generally not enough to put vineyards at risk. A couple growers near the 1400' level have experienced some frost, but not nearly to the extent nor frequency of higher vineyards.

(3) Distinguishing Features:

(i) Climate. Crystal Springs AVA is of the upmost integrity because it is all hillside of mostly SW exposure. There is not a level area in it. This topography makes for the most important and defining qualities- frost free and reliable ripening. There is a long growing season is due to safe Spring and Fall climates. Every other AVA bordering this proposed AVA has significant frost within its boundaries and require orchard fans, heaters, sprinklers, or misters. Vineyards in the Crystal Springs AVA do not need these protections. There are three main reasons for this: Cold air does not pool on hillsides, compression heating occurs as the air flows down at night, and 1400' is generally not high enough for elevation-induced frost. Howell Mountain AVA, Calistoga AVA, and Saint Helena AVA all have significant lands that experience frost and the vineyards require protection from it. The distinguishing features support the boundaries. Like Saint Helena AVA and Calistoga AVA, the Pacific's marine layer influences Crystal Springs. Unlike Howell Mountain, which is above the marine layer. Crystal Springs may be the most-reliable nested AVA in the Napa Valley AVA.

(ii) Geology. The Vaca range in the proposed area is volcanic in origin. From the palisades made of igneous rock, to metamorphic and sedimentary rocks made of tuff. Some areas have obsidian and red volcanics too.

(iii) Soils. Weathering and erosion over millions of years have left little top soil, and therefore exposed rocks including parent material are common. Uplifting and weathering has made the available soils quite varied, even within a parcel. Soils are important, but they are a tertiary concern compared to climate, exposure, and slope in viticulture. The hills are covered mostly with drought-tolerant species such as oaks, chaparral, ghost pines, and manzanita.

(iv) Physical features. The area is entirely sloped, no flat areas or natural lakes exist, however, being hillside, there are springs and seasonal creeks as well as drainages.

(v) Exposure: With the boundaries encompassing a generally SW exposure, the solar radiation is high, allowing for mature fruit every vintage.

(vi) Elevation. The proposed AVA is from 400-1400’, 1000 vertical feet of hillsides.

(4) Maps and boundary description.

(i) Maps, supplied. Calistoga and Saint Helena quadrangles USGS 2015 (Imagery 2012)

(ii) Boundary description. Maps used: USGS Saint Helena (2015) quadrangle and Calistoga (2015) quadrangle, 7.5 minute series. Clockwise direction: (1) Begin at “Four Corners” near Angwin. Proceed down Old Howell Mountain Road 3.4 miles to where it crosses the 400’ contour, which is 95’ uphill from Big Rock Road. (2) Thence, follow the 400’ contour West and then Northwesterly approximately 6 miles to “North Fork Crystal Springs.” (3) Thence, continue up the road to the 880’ contour. (4) Thence, follow the 880’ contour northwesterly to Biter Creek. (5) Thence, follow Biter
Creek uphill, northeasterly to the 1400’ contour. (6) Thence, proceed Southeasterly along the 1400’ contour to White Cottage Road. (7) Thence, go East down White Cottage Road 130’ feet, to the starting point, “Four Corners.” (8) EXCLUDE the “pocket” near “Four Corners” known as Crestmont in the Saint Helena quadrangle, to the South of the intersection, as it is above 1400’ is excluded from Crystal Springs AVA.

(b) AVAs with AVAs, comparing and contrasting.

Comparing: The entirety of Crystal Springs of the Napa Valley AVA is in the Napa Valley AVA. Crystal Springs AVA, is like Napa Valley AVA in that robust, reliable, and complex vintages are grown within it. The diurnal temperatures, influence from the Pacific Ocean’s maritime air and plentiful sunshine are consistent with the general reputation of the larger, ubiquitous Napa Valley AVA.

Contrasting with Saint Helena AVA: Crystal Springs of the Napa Valley AVA is an entirely hillside, rural, frost-free region with roughly homogenous exposure, South-West. These features produce distinctly different grapes than valley floor. With few exceptions, slopes are steep from 15 to 40%, well-drained, and exposed. Whereas Saint Helena AVA is mostly less than 5% slope, requires frost protections, has riparian habitat running through it, and is not homogeneous in topography as parts of it follow City Limits into the hills. In Dr. Skinner’s 2003 report he concludes Saint Helena AVA is “subject to damaging, early season frost events...” whereas Crystal Springs is not subject to the frosts. Saint Helena AVA is adjacent to proposed, with only minor, incidental overlap with Crystal Springs where the City Limits are over 400’ to Gerrymander in some homes at the base of Old Howell Mountain Road. This overlap is only caused by city management decisions for roads and taxes, nothing to do with agriculture.

Contrasting with Calistoga AVA: The Calistoga AVA has a multitude of exposures, altitudes, topographies, and slopes, from steep mountains to benchlands to fans, to flat valley floors to riparian habitat. Elevations range from about 300’ to over 1300’, which in this region includes the aforementioned diverse topography. The wide range of conditions in the Calistoga AVA make it a stark contrast to the Crystal Springs AVA, which is all hillside, and a SW-facing plane in general. The flat areas of Calistoga have severe frost. All of Calistoga AVA has Pacific Ocean influence from the Calistoga gap (Chalk Hill- Knights Valley- Fountaingrove gaps.) Calistoga AVA boundary is adjacent to Crystal Springs where it climbs up Howell Mountain and heads North from the 400’ to the 880’ contour, then along the 880’ contour to Biter Creek- no overlap. The petitioner of the Calistoga AVA were unaware of plans for the Crystal Springs AVA. They may have stopped at 400’ if they had known, instead of proceeding to the arbitrary 880’ contour. In 2003, when Dr. Skinner’s report was published, Calistoga AVA did not yet exist, and Saint Helena AVA was described as “lies at the northern end of the Napa Valley...” Thereby Calistoga is also “subject to damaging, early season frost events...” unlike Crystal Springs.
Contrasting with Howell Mountain AVA: Crystal Springs AVA, like the Howell Mountain AVA is one of focus, high integrity and firmly distinguishing characteristics. Unlike the Howell Mountain AVA, Crystal Springs does not have the same harvest-time risks with frost. Nor does Crystal Springs have frost concerns during bud break. Howell Mountain is Napa Valley’s only “all-mountain” nested AVA that does not have boundaries that go down to the valley’s edge— it is the top of the mountain only. The adiabatic cooling of 3-6 degrees per 1000’ feet of elevation strongly affects Howell Mountain’s climate. Also, above about 1400’, in the Howell Mountain AVA, there is an inversion layer common during the growing season. The cool, dense air from the Pacific flows into the Napa Valley, from the Calistoga gap and the Petaluma Wind Gap pushing the warmer air up, hence, inverted from the normal. (Normally, higher elevations are cooler, whereas Howell Mountain has warmer nights compared to marine layer influenced areas under about 1400’.) Howell Mountain is adjacent to Crystal Springs, no overlap. Dr. Skinner’s report states that “frost does occur in the coldest years.” Growers commonly use frost-protection into June on Howell as elevation and radiant frost are significant concerns in Howell Mountain AVA.

Appendix: Separate attachments of non-wine name evidence and distinguishing features metric.
As a neighborhood, Crystal Springs is an area that bands together. On June 30th, 2005 and June 22, 2016, Alan Goldfarb, the Napa Valley Register and Saint Helena Star published articles titled: “Crystal Springs neighbors trying to stop Woodbridge’s winery project.”


Crystal Springs neighbors trying to stop Woodbridge's winery project

By Alan Goldfarb - WINES EDITOR  |  Jun 30, 2010 Updated Jun 30, 2016  |  0

As an area, it is a scenic and well-travelled bicycle route. Here is an article from 2016, and some links to rides marketed to all touring cyclists:

Napa: Silverado-Howell Mountain-Crystal Springs-Franz Valley-Ida Clayton

https://ridewithgps.com/events/47305-north-bay-napa-county-region#routes/14490907/preview
As a luxury area to reside in, in the Napa Valley:
https://www.youtube.com/watch?v=mWekW4t4Ypo
As an address to some of Napa’s finest wines, Napa Valley Vintners Public Information Site, napavintners.com winery finder:
https://napavintners.com/winery/merus/

Napa Valley Wineries

Due to current health and safety measures, all wineries are accepting visitors by...

Merus

424 Crystal Springs Road
Saint Helena, CA 94574
707-251-5551
map I add to trip
website I email

Winery Finder
Search by Winery Name

Hours:
Not open to the public - Invitation Appointments only.
Tastings/Appointments:
707-251-5551
As a choice vineyard location:
https://www.vasocellars.com/crystal-springs/

At just over 11 acres planted between 560 and 850 feet in elevation on the slopes of Howell Mountain, the Crystal Springs Vineyard is fully western facing and a warmer site which will generally mean an earlier harvest. Conversion to dry-farming at this site is nearly 95% and it's only this site where Cabernet Sauvignon is planted on a quadrilateral trellis system. Alluvial gravels derived from volcanic rock are largely consistent throughout, making this site our most uniform terroir.
Salvestrin Sauvignon Blanc from the Crystal Springs area 2019 vintage:


2019 Sauvignon Blanc, Crystal Springs Vineyard
$28.00

BUY NOW

DESCRIPTION

Our 2019 Sauvignon Blanc reflects the perfection of the best growing season we experienced last year. Brilliant aromas of citrus, green apple, and mineral notes emanate from the glass. Vibrant acidity leads to a lush, concentrated and full mid-palate that reveals substantial weight on the back end. A full rich ripe
HISTORY OF SOLANO AND NAPA COUNTIES

eighteen years of his life. He made a record as a man kindly and helpful to all—a man who strove to carry out the highest code of ethics in his every day career.

ST. HELENA SANITARIUM.

Preserving and regaining health by natural methods is the platform of the St. Helena Sanitarium, established in 1874 and now the oldest and largest health institution in the west, devoted to the principles of hydrotherapy and physiological therapeutics. This institution was founded by W. A. Pratt, J. J. Longthorne, Dr. H. G. Wells, and others, the original name being The Royal Health Retreat. They who established this Retreat were also actively interested in the founding of the famous Paata Creek Sanitarium and of many other similar institutions, but none in this country, but throughout the world.

An institution having for its object the restoration of health by natural methods should be located where nature is at her best. The founders of this Sanitarium therefore very wisely selected a quiet retreat among the unscarred foothills of Mount St. Helena, one of the proudest summits of the upper Napa valley. Access to all parts of the world was only by boat, the date being nineteen hundred and eighty-six, when the steamship passed through the emerald green of the Crystal Springs, which first gave name to the place, with its trees and surrounding views. A level and peaceful shore is a necessary and indispensable condition to the treatment of the sick here gained for it a worthy reputation for its professional work.

The main building of the Sanitarium is a fine two-story structure with an interior entrance. The hospital is a modern house, so planned that the direct rays of the sun enter every room. There are seven cottages for the accommodation of the guests, each containing from two to twenty rooms. The grounds comprise about one hundred acres of ground for the most part beautifully shaded. A small grove is covered with fruit trees, and a variety of garden. All Sanitarium methods cluster around the central idea of health culture under conditions very different from those found about an ordinary hospital. While all possible treatments are used for the direct treatment of disease, the most substantial attention is given to those influences which directly strengthen and harmonize the body with all its waste functions. Since the line of elevation has not received some results outside of himself that will counteract or cure the conditions within which are the cause of his suffering, he is so far forgetting that nature has already provided forces within as sufficient for the cure of all ailments.

All the remedies used in the institution are based upon the idea that the physicians of the Sanitarium devote their whole time to the detection of the patient. They act on him with every modern device for the alleviation of the sufferings of humanity, and their labors are uniformly effective. Instead of all kinds of medicines and (unhealthy) results are obtained. Some of them have cured others for the sake of the patient, and they are the result of a continuous and steady plan directed to the various processes of treatment. Each case is separately attended to, the patient being under the care and direct supervision of a competent man of medicine.

Statistics as a remedial measure is of great importance, and this subject requires proportionate attention at the Sanitarium. The medical department
Finally, Albino Pestoni, at BW #935 with vineyards from 400-700' elevation:
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Elevation</strong></td>
<td>400-1400' All hillsides.</td>
<td>275'-1330' Floor and hillsides, with riparian habitat.</td>
<td>200-500'. Floor and hillsides with riparian habitat.</td>
<td>1400 and up, all hillsides and mountaintops.</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Soils: Majority of soil listed, must be at least 10% to list. Source: USDA.gov</strong></td>
<td>Shallow, thin, weathered soils. Rocky outcroppings. 33% are 50-75% slope, 17% are 14-60% slope, 15% are 12-57% slope, 13% are rock outcrop.</td>
<td>Valley floor is deep alluvial 25% are 0-2% slope. Hillsides vary on the East with shallow, weathered soils to rich, fertile soils on the Western hillsides and toe slopes. 20% are 12-60% slopes soils, 10% are 30-75% rock outcrops.</td>
<td>Valley floor is deep alluvial clay loams 24% are 0-2% slope. 15% are 0-5% gravelly loam. 10% are 12-57% silt loams. Hillsides vary on the East with shallow, weathered soils to rich, fertile soils on the Western hillsides and toe slopes. Hillsides frequent 40-60% slopes.</td>
<td>Hillsides are shallow, weathered soils. 27% are 2-30% loams. 20% are 12-57% slope silt loam, remaining soils are rock, gravels, or loams with varied slopes. Less-sloped areas can have deeper, but rocky soils.</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Climate during growing season</strong></td>
<td>Marine influence, little to no frost. High diurnal range.</td>
<td>Marine influence, severe Spring frosts occur, high diurnal range.</td>
<td>Marine influence, severe Spring frosts occur, high diurnal range.</td>
<td>Little to no marine influence, smaller diurnal range, frost from altitude and radiant heat loss occur in the Spring and Fall.</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Frost during growing season</strong></td>
<td>Inconsequential</td>
<td>Yes, severe</td>
<td>Yes, severe</td>
<td>Yes, regularly</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Exposure</strong></td>
<td>Generally SW</td>
<td>All. Northern, Eastern, Southern, Western, Flatlands. Calistoga AVA topographically resembles a bowl, with a large flat area surrounded by hills.</td>
<td>All, mostly flat with Eastern and Western-facing hills on each side of valley where Saint Helena AVA goes into the hills.</td>
<td>Rolling terrain, with flatter areas and all exposures. Vineyards typically not planted on Northern exposures.</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Topography</strong></td>
<td>Generally a plane with 10-50% slope.</td>
<td>All. Flatlands, toe slopes, foothills, hillsides.</td>
<td>Flatlands, toe slopes, foothills.</td>
<td>Hillsides and a rolling plateau-like topography on top.</td>
<td>N/A</td>
</tr>
</tbody>
</table>
particularly the Pfalz where two-thirds
total of 220 ha/540 acres were
early 1900s and are better at pro-
than red wine. Its most useful func-
tion, like Herold’s even less popular
许, it spawned the promising

2700 ac), the earliest agricultural
in-dependent GRECk. WOmEN and Days and
s a homely advice for the farmer: “Be
the riddle of the cask, but when you
at the end drink all you want; it’s
thing drugs.” He is the first writer to
le rustic pleasures: “I love a hearty rok
wine [from AVILOs], a cake of cheese,
milk, and some meat of heifers past-
ive woods, uncultivated, of first-born kids.
y sit in the shade and drink the sharing
eat my fill, and turn my face to meet
just west wind, and pour three times an
rom the spring which always flows.
, stream down, and make my
em one of wine.” He is said to
he grape harvest as ‘when Orion and
at Sirius) move into the mid sky.”

H A. H.

he Bergstrasse, one of the smallest
ions in GERMANY (see map under
The northern vineyards on the
of Germany’s Odenwald have
are all since 1997. They com-
50 ha/110 acres of which a large
 proportion, 56 per cent in 1997, is
in Riesling. The best produces dis-
a wine, comparable to that of the
Area devoted to red grapes, par-
area tradition, was eight per cent in
continues to grow. Of the 850 or so
approximately 6000 deliver their
ably co-operative cellar at Hei-
which sells 75 per cent of its produc-
to tires within the region. Only a small
and the remaining amount of the
co-operative’s wine is
is supermarke, and sales directly to the
in the wine trade are increas-
ing Heusische Bergstrassen wines are rare-
tor Germany). The state of Hesse is the
vendee owner with 39 ha/94 acres under
ried on Bensheim. It is particularly
for its Riesling wines, but the wines
r vine varieties are also very
elegant, and go well with those from elsewhere in
ny. More than 80 per cent of Hessen-
ese wines are dry: trocken, or

Ger: an Austrian wine specialty. “Hear-
means ‘this season’s,’ but Heuriger has
mean both wine from the most re-
and the place where the wine is offered,
scription by its producer. A wine
aker’s
effectively to set up his own wine bar
ried in the time of CHAREMBAGH,
by recognized by Emperor Joseph II in 1784,
as continued as a tradition throughout
These small often family-run wine

hoch, generic term for (white) Rhenish
from the wine region of GERMANY, some-
time for the wines of Germany in general. A
ction of hocksmore, an English rendition of
the adjective Hochheimer, denoting wines from
Heilbronn on the river Main just west of Frank-
furt (see BERRINGAU).
The earliest firm reference in English occurs
in Thomas D’Urfe’s play Madam Fickle, or The
Witty Fiala One in 1607: ‘Here’s glass of excellent
old Hock.’ The Oxford English Dictionary gives a
first reference in 1625 in John Fletcher’s play The
Chances, but this depends on a corrupt reading of
hock for hollock, a light red wine. However,
it is likely that the term was already current in
England by the 12th century, for its use is closely
linked to the growth in popularity of Rhenish

Hillside vineyards. Even in Ancient Rome it
was said Bacchus amat collae, or Bacchus loves the
hills, suggesting that hillside vineyards have long
been regarded as a source of high-quality wine.
This is partly because hillside soils are typically
shallow, so that vineyard vigour is relatively low
and a factor commonly associated with high
wine quality. Over millions of years old soils tend to be
washed down the hillside and accumulates in
the valley floors. Vineyards planted there will typi-
cally be more vigorous as the soils are deeper
and the roots will be able to reach more water
and nutrients.

Vines may also be planted on hillside for
reasons of microclimate, as hillside are less
prone to frost because cold air can drain freely
away at night (see AIR DRAINAGE and TOPOGRAPHY).
If the slopes face the equator, they will
receive more sunshine during the day and can
radiate the heat absorbed during the day at
ight or during cloudy weather. In warmer
regions some vineyards may be planted on hill-
sides to take advantage of cooler temperatures
at higher altitudes and therefore extend the
growing season. Since the early 1980s there has
been an increasing tendency to plant elevated
sites in Australia, Argentina, South Africa, and
California, for example, in order to produce a
more cool climate style of table wine.

Hillside vineyard sites have their drawbacks.
SOIL EROSION is an obvious example, and in Cali-
forina’s NAPA VALLEY there are strict regulations
for erosion control, but hillside vineyards.

R.F.S.

Hilltops, new wine region in NEW SOUTH
Wales, Australia, also known as Young.

hippocras, popular medieval FLAVOURED
WINE.

histamine, the amine involved in a range of
allergic reactions in humans, was once thought
the cause of some people’s sensitivity to red wine.
Improved methods of wine analysis have dem-
strated that the amounts of histamine in wine
are at least an order of magnitude below that
required to cause an allergic reaction in the great
majority of people. However, a few people have
low levels of the enzyme which breaks down
histamine, so histamine levels in their blood rise
equivalent to cause allergic reactions after
drinking wine with even low levels of histamine.

One Adelaide research project found levels of
between 1.9 and 9.9 mg/l of histamines in wine,
while another at Davis found an average of 5.8
mg/l in 250 California wines, with higher con-
centrations in fortified wines. A.D.W. & J.H.H.

Hochgewichs, one of a number of label
cues to one of GERMANY’s better wines launched
to supplement those provided by the GERMAN
WINE LAW. A wine labelled Riesling-Hoch-
gewichs is a QBA which has reached much higher
market weight and overall quality than the legal
minimum. The term applies exclusively to Ries-
ling.

hock, generic term for (white) Rhenish wines,
from the wine region of GERMANY, sometimes
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hock

higher alcohols. See FUSIL OILS.

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while another at Davis found an average of 5.8
mg/l in 250 California wines, with higher con-
centrations in fortified wines. A.D.W. & J.H.H.

Hochgewichs, one of a number of label
cues to one of GERMANY’s better wines launched
to supplement those provided by the GERMAN
WINE LAW. A wine labelled Riesling-Hoch-
gewichs is a QBA which has reached much higher
market weight and overall quality than the legal
minimum. The term applies exclusively to Ries-
ling.

hock, generic term for (white) Rhenish wines,
from the wine region of GERMANY, sometimes
for the wines of Germany in general. A
contract of hocksmore, an English rendition of
the adjective Hochheimer, denoting wines from
Heilbronn on the river Main just west of Frank-
furt (see BERRINGAU).
The earliest firm reference in English occurs
in Thomas D’Urfe’s play Madam Fickle, or The
Witty Fiala One in 1607: ‘Here’s glass of excellent
old Hock.’ The Oxford English Dictionary gives a
first reference in 1625 in John Fletcher’s play The
Chances, but this depends on a corrupt reading of
hock for hollock, a light red wine. However,
it is likely that the term was already current in
England by the 12th century, for its use is closely
linked to the growth in popularity of Rhenish

hock
'St. Helena is Good for Your Health'

'University of Health'

Sixty years before, when it first opened in 1878, the “Rural Health Retreat” at Crystal Springs promised a “medical and surgical sanitarium” where “those who have tried the drug system of medication without benefit are cured by Nature’s own remedies.” Those remedies included “all the various forms of water (treatments), vapors, hot air, medicated and electric baths, Swedish movements, proper exercise and rest.”

“Pure, soft water and wholesome diet, agreeable mental influences, delightful climate, beautiful scenery and pleasant surroundings” contributed their part to the patient’s health, although “medication such as each individual case may demand” was also provided.

The Rural Health Retreat was a Seventh-day Adventist undertaking, modeled on the program of diet, massage, and hydrotherapy pioneered at Battle Creek (Mich.) Sanitarium, where a famous Dr. Kellogg practiced (better known to us from Kellogg’s ‘Special K’ cereal.)

In 1891, St. Helena had its own school of nursing, “one of the first six on the West coast.”