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THE

# VINE IN SOUTHERN CALIFORNIA.

BEING

REPORTS BY COMMISSIONERS BICHOWSKY AND SHORB

ON THE

# PRESENT STATE OF THE VINEYARDS.

PUBLISHED BY THE

BOARD OF STATE VITICULTURAL COMMISSIONERS.



SACRAMENTO:

STATE OFFICE, : : : : A. J. JOHNSTON, SUPT. STATE PRINTING.

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## INTRODUCTION.

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The following reports on the present condition of the vines in Southern California, and the recent reported progress of the Anaheim disease, have been made to the Board of State Viticultural Commissioners. I was instructed by the Executive Committee of the Board to have these reports printed and distributed to the vine growers of Southern California, before the planting season of 1892-93.

WINFIELD SCOTT,  
Secretary.





## REPORT OF E. C. BICHOWSKY,

Commissioner for the Los Angeles District.

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SAN GABRIEL, October 27, 1892.

*To the Board of State Viticultural Commissioners, San Francisco:*

GENTLEMEN: On the morning of the 13th instant appeared an article in the Los Angeles "Times," announcing that the dreaded vine malady, known as the "Anaheim disease," had again appeared in the section from which it derives its name, after having apparently left it for a number of years, attributing its appearance at this time to planting of vines in soil heretofore set out in vines destroyed by the malady, and claiming that the contagious germs remained dormant in the soil until material was furnished them to prey on. It will be remembered that this peculiar disease, which has played such sad havoc with one of the most prominent industries of Southern California, is said to have originated some five years ago in that part of Los Angeles County which now constitutes Orange County, and has destroyed since then, almost completely, thousands of acres of vineyards in that and adjacent territory, leaving them bleak and desolate. After the vineyards had been cleared, it was determined as an experiment by a few former owners of vineyards to replant this land again with grapevines, obtaining their cuttings from districts where the disease had not heretofore been observed. Those who had the courage to make the attempt, at the end of the first year found apparent success crowning their efforts, for the young vines had passed through the trying time general to all plants, making a good growth, vigorous in appearance, and evidently free from all disease. Others, emboldened by the success of their neighbors, set out other small vineyards, and the prospects were again favorable for the establishment of vineyards in this and other districts.

It was but recently I was informed, upon inquiry, that the young vineyards planted in Orange County were thriving. I was therefore greatly surprised to read the article announcing the reappearance of the disease in that section. Knowing that a number of parties in Orange and Los Angeles Counties, owing to the apparent departure of the disease, intended to plant vines largely this coming year, I determined to investigate the reports, and if I found the disease again appearing in a locality where it was reasonable to believe it had become extinct, it would be my duty to inform all those interested of this fact.

On the morning of the 25th instant I left for Santa Ana, accompanied by Prof. Ethelbert Dowlen, viticultural expert, whom I had requested to go with me on my tour of inspection. At Santa Ana we were met by Mr. E. S. Wallace, a resident of that city, and author of the above-mentioned newspaper article, together with Prof. Newton B. Pierce, Government Pathologist. This latter gentleman is at present located

in Santa Ana, and kindly accepted an invitation to join us. Ten vineyards were visited during the day, four of which were entirely free at that time from any sign of disease, while six showed the apparent baneful influence of the destroyer in a greater or less degree. In going to Santa Ana, my object was to inspect those vineyards which had been reputed to be contaminated with the malady, and *not* so much to inspect vineyards free from disease; therefore, while we saw evidences of disease in six out of ten inspected, it is not fair to assume that such a large proportion of all the vine-producing areas in that district are thus affected.

The first vineyard visited is located a short distance from the town of Orange. There are about 10 acres of vines in this place planted on coarse, gravelly soil, but from the appearance of plants there must be sufficient loam underneath to force the growth to a remarkable degree. Considering that these vines are only six months old, runners measuring from 6 to 10 feet in length are rather surprising for such young plants. A number of these vines also showed small bunches of grapes. No disease was visible here.

The next vineyard was a field of 10 acres belonging to Mrs. Blaisdell. This property is about a mile from the first vineyard visited. Here the first evidence of the disease was detected, and especially was it pronounced upon a ridge running through a portion of this field. The soil there was evidently much poorer in quality than that surrounding it. On inquiry we ascertained that the cuttings in this vineyard had been set out on land which had formerly borne vines killed by the disease. These cuttings were said to have been brought from Elsinore, in February, 1892, at which time they were thought to have been entirely free from disease.

The next vineyard visited was located on the Tustin branch of the Southern Pacific Company, and is the property of Mr. McPherson. This was found free from disease. The soil is gravelly, with dark, heavy loam. Cuttings were said to have been set out in the spring of 1890, and up to the present time have retained their full vigor. The next vineyard inspected is on the Hughes ranch. The soil here is gravelly, with light, sandy loam, and the vineyard is free from disease. Just across the road from the former is another small vineyard, in which the vines are young, healthy, and vigorous. Just back of this vineyard is the property of Mr. Sitton; this is also free from disease.

The sixth vineyard examined contained vines from six months to two years old, in the larger portions of which evidences of the disease were discovered. Here we observed that the young vines were not infected as much as the older ones.

The seventh vineyard was the property of C. B. Pulver. Here the disease was more marked than upon any other vines heretofore examined. The cuttings were obtained from Etiwanda, and were supposed to have been free from any infectious disease. They were set out in the spring of 1891.

The eighth vineyard visited adjoins the Santa Ana cemetery. The cuttings from which this vineyard were planted were also brought from Etiwanda, in the spring of 1890, and were believed to have been free from disease. Through this vineyard, as in the one already mentioned, a slight elevation of the soil runs from north to south. The vines on this show the signs of the disease more marked than those surrounding it on

lower ground. When mentioning this to the owner, he explained that in his opinion the lack of vigor in these vines was due to the fact that they had not perhaps received as much irrigation as the neighboring ones. This vineyard was said to have borne a good crop. A number of grapes which were picked from the vines, however, had the unmistakable flavor so common with fruit plucked from vines afflicted with the Anaheim disease.

The ninth vineyard is the property of Fred. Rohrs. The cuttings also came from Etiwanda, in the spring of 1890. Like all other cuttings from that neighborhood, they were supposed to have been free from all disease, but to-day the vineyard shows unmistakable signs of the malady.

The last vineyard inspected is the property of Mr. Nisson. It contains only about 2 acres. The cuttings with which this small tract was planted, Mr. Nisson informed us, were obtained from San José, in the year 1891. This vineyard, like some of the others, was planted where diseased vines were taken up in the winter of 1888-89. Professor Pierce, who has made this particular tract one of study, wrote to San José, where the cuttings were obtained, to ascertain whether any disease has made its appearance there. He was informed that no disease of the character described had shown itself in that valley, and to make the statement positive he was sent leaves from the identical vines which furnished cuttings for Mr. Nisson's vineyard. The leaves were perfectly green, being free from that spotted character so peculiar to the disease.

In four of the six infected vineyards inspected, it will be noticed that the cuttings in each were obtained in Etiwanda, in San Bernardino County, a district which, at the time of securing these cuttings, was free from disease, but which in the past eight months is said to have developed it. Therefore, if such is true, it cannot be positively stated that the disease was not in the cuttings but lurking in the soil, while in the case of Mr. Nisson, we have positive evidence that the grape cuttings which he secured from San José came from healthy stock. Here apparently is a case where the "impregnated ground" theory may hold good. The vineyard of Mrs. Blaisdell contains cuttings from Elsinore. In this district, I have been lately told, exists a disease almost identical in its most visible features with the Anaheim disease, differing from that, however, in this essential—that the plant does not die from it.

I might add a curious fact which has come under my personal observation in the Sunny Slope vineyards located in the San Gabriel Valley. During the height of the disease in this vineyard a large plot of Mataro vines had every appearance, as far as outward signs would indicate, of a very severe attack of the Anaheim disease, so much so that it was considered lost; but, contrary to all expectations, the following year the vines made some new growth, of better color than usually made by diseased vines. This continued to increase as the season advanced. I have watched this particular plot, as I have been in a position to do so, with a great deal of interest, and can state that to-day there is not a healthier lot of vines of that variety in the valley. The fruit this year was perfect in shape, full-grown, and sweet, and a good crop was produced. None of the so-called patent remedies of any kind were used to bring this result about; only good cultivation and irrigation was given, and the balance was accomplished by nature. This is a very rare case; in fact it is the only one known to me where the disease acted



in this most peculiar way. The usual result to an attacked vine was death.

It therefore seems to me, through the inspection made, that the attack being of such recent date, it will be impossible at this time to positively state that the malady which we diagnosed as the Anaheim disease is such or something very similar in appearance to it; however, disease is apparent there, but whether it is the fatal Anaheim disease is a question which time alone can answer. All vineyards inspected were planted in Muscat cuttings.

In the valley in which I reside—the San Gabriel Valley—the fatal Anaheim disease to all appearances has ceased its virulence, attacking very few vines this year which have hitherto been free from it, but in the face of the former symptoms observed in the birthplace of the disease, as above set forth, it would be well for those intending to set out large bodies of vines to go slowly for the next year, and await developments in the infected districts, as it is a question whether the disease has run its final course.

Before closing, I desire to express my thanks to Professor Dowlen, Mr. Wallace, and Professor Pierce for valuable information received and courtesies extended.

Respectfully submitted.

E. C. BICHOWSKY,  
Commissioner for Los Angeles District.

## REPORT OF J. DE BARTH SHORB,

Commissioner for the State at Large.

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SAN GABRIEL, CAL., October 12, 1892.

*To the Board of State Viticultural Commissioners:*

GENTLEMEN: I herewith submit report of Prof. Ethelbert Dowlen on the condition of the vines of San Diego County.

J. DEBARTH SHORB,  
Commissioner for the State at Large.

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SAN GABRIEL, CAL., October 12, 1892.

*Hon. J. DEBARTH SHORB, Commissioner for the State at Large:*

SIR: Herewith I beg leave to hand my report on the vineyards of San Diego County, being the result of a tour of inspection taken pursuant to your instructions.

The "Pacific Wine and Spirit Review" of September 20, 1892, contained a paragraph to the effect that the "Anaheim disease" had appeared in an old vineyard at Escondido. As this was a district not known hitherto as being affected by the "Anaheim disease," a journey was at once made to inquire into the condition of the vineyards there, as well as in other parts of San Diego County.

The vineyard referred to in the above-mentioned paragraph was found to be not in the Escondido Valley proper, but in a cañon running off from it, and some three or four miles from the town of Escondido. The soil is rich and deep, with abundant moisture, but not too much. The vines are of several varieties—Mission Muscat, and Black Morocco forming the chief part. The crop was being gathered for shipment East. In this vineyard were a number of vines scattered about which showed evident signs of "Anaheim disease." The affected vines were mostly amongst the Mission vines, and only a few cases were seen amongst the Muscats. The disease had made its first appearance only some eight weeks previous to the visit, and had attacked some of the strongest of the vines, leaving those on the lighter and poorer part of the vineyard unaffected. As this is an entirely new outbreak, it would be interesting to know whether the vines will follow the usual course and eventually die, or whether they will recover, as they have done elsewhere in San Diego County. Some of the vines were suffering from sunstroke, and some were affected by a disease of the leaf which has a great resemblance to the "Anaheim disease," but does not seem to extend beyond

the foliage. Another vineyard close by was also found to be slightly affected. This was on somewhat higher ground.

At Vista, some 10 miles distant from the above vineyards, and about 14 miles from Escondido town, a series of low hills and small valleys intervening, the Anaheim disease was also found. The vines were in good, deep soil, and generally were strong and healthy, and were well supplied with natural moisture. The varieties were Mission, Mataro, Muscat, Riesling, Black Hamburg, and Black Morocco. The fruit was all used for wine making. Here the disease was of older standing, some vines having been affected last year. Some of these were dead; others had put out only the usual stunted growth. In this vineyard the disease had appeared in small patches rather than in single vines. The greater number of sick vines were in one corner of the vineyard, where the soil was more adobe than anything else. The owner asserted that he had vines which had been diseased, but which had quite recovered.

In the Escondido Valley proper the vineyards, which are almost all set out to raisin grapes, were found to be in excellent condition. Nothing was found to be the matter with the vines, except that in a few spots they showed slightly the effects of want of moisture, due to the short rainfall of last winter. Besides this, there was a small plot of Mataro vines which had been somewhat badly mildewed. This was on a hillside some distance away from most of the vineyards. Besides this, no other sign of sickness was found. The vines all over the valley had made a good growth, and had borne a fair crop of fruit, which was of excellent quality. Drying was still going on at all the vineyards, the cool season having delayed this operation.

In the adjoining districts of San Marcos and Twin Oaks the vines were extremely vigorous, the fruit being of large size and good quality. No Anaheim disease was found here, nor did there seem to be any other trouble present.

In El Cajon Valley the vines were also in good condition. In some places, where the vines had not been irrigated, they showed some effects of the short rainfall, but no Anaheim disease was found. It will be remembered that it was in this valley that the first outbreak of Anaheim disease was reported in 1889. A special visit was made to the two vineyards then affected. The vines are now perfectly healthy, and show no sign of sickness, and have borne good crops all along. This is an extremely satisfactory state of things.

In the Sweetwater Valley the vines are also in excellent condition. As in other places, those vines on lighter and poorer soils showed the effects of want of water, but this was the most serious thing the matter. Here and there in the valley there were patches of vines having their leaves spotted in a manner very similar to the markings produced by the Anaheim disease; but that these vines are not affected by the Anaheim disease is evident for various reasons. The markings on the leaf are not the same as those brought about by the Anaheim disease, though they are much like them. The number of vines affected varies from year to year; sometimes very few are found, sometimes more, especially in a dry season. The vines do not die, nor become stunted, but put out their normal growth, and bear a good crop every year. Frequently the spotted leaves remain on the vine just as long as those not so affected. The fruit is not affected in any way, either in quantity



or quality. The canes are not dwarfed, but make a normal growth. They do not die back, or remain unripened, or become discolored, but they ripen thoroughly, and remain clean and bright. Canes were taken from vines having the greatest proportion of spotted leaves, and examined under the microscope. Their wood was found to be perfectly healthy, being bright and clear, and not having any brown spots, or streaks. The pith was clear and sound, and the tissues were well supplied with starch, the grains of which color easily with iodine, and were of the usual size.

Special attention was given to these vines, as it would be quite easy for any one not well acquainted with the Anaheim disease to be led into error by the appearance of the foliage only, and thus create needless alarm.

Respectfully submitted.

ETHELBERT DOWLEN.

The above report is entirely approved and respectfully submitted to the honorable the Board of State Viticultural Commissioners.

J. DEBARTH SHORB,  
Commissioner for the State at Large.











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