

NOTES FROM THE U. S. BUREAU OF CHEMISTRY.*

THE COMPOSITION OF CALIFORNIA LEMONS.¹

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[ABSTRACT.]

SAMPLES of the Eureka, Lisbon, and Villa Franca varieties of California lemons, from carefully selected trees located in the best lemon-growing districts of the State, were analyzed. The sampling was carried out at monthly intervals through a period of a year, with the following general results.

The differences in specific gravity of the fruit are the most striking of the few well-defined differences found to exist between the varieties examined. The Eureka variety has a greater specific gravity than either of the others; there is no apparent difference between the specific gravity of the Villa Franca and Lisbon varieties.

The Villa Francas contain more oil than the Eurekas. Otherwise, no absolute difference in the oil content is shown, although there is some indication that the Eureka contains less than the other varieties.

There is no difference in the acid content of the three varieties.

A marked difference in the sugar content of the Eureka and Lisbon varieties was shown.

California lemons have the lowest specific gravity during the winter months, and the highest in midsummer. The oil content is lowest in late winter and spring, and highest in the fall. The acidity is highest in the early fall months.

No correlation between the color of the peel and the composition of the fruit was found. As the thickness of the peel increases, the specific gravity of the fruit decreases, as does also the acid content.

No correlation between color and thickness of the peel was shown.

No difference in composition between lemons grown on the coast and those grown in inland valleys was detected.

* Communicated by the Chief of the Bureau.

¹ U. S. Department of Agriculture. *Bulletin* 993, issued October 15, 1921.