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• Annual Report ...

## Greek Olive Oil

## Production Study

THIS IS THE FIFTH of a series of studies evolving from the continuous investigation of the physical and chemical characteristics of Greek olive oil, by the Ministry of Commerce, Kingdom of Greece, Caningos Square, Athens. Published annually since 1956, the current report describes the characteristics of oil from the 1960–1961 olive crop.

Chemists of the Ministry of Commerce gathered representative samples from the many olive oil extracting plants in Greece. The comparatively modest annual crop of olive oil, totaling only 74,971 tons, appears inferior in quality to the 1959–1960 crop. The 355 samples from every district of the country show the following percentages in eight quality grades:

F.F.A. as % oleic

A	0–1%	3.13%
B	1.1-2	13.44
С	2.1-3	9.37
D	3.14	6.25
Е	4.1–5	8.75
<b>F.</b>	5.16	7.81
G	6.17	8.44
Nonedible	7.1 and above	42.81

With the decrease in the over-all crop, a definite increase in nonedible olives is apparent. Adverse weather conditions during the maturing stages of the crop contributed to the decrease in quality. Another factor adversely affecting quality was the late infection with "Dakos" which affected the total crop in some areas. Other diseases were also noted.

Through the entire five years of this study, the Bellier Color Reaction on samples from the Laconia, Zante, and Leucandia areas has been positive. Conversely, the Reaction was negative on samples from Magnesia, Samos, and Rethymnos. It was noted in the second year of testing that samples with a high turbidity indication evidenced a negative result, while those with low turbidity indication showed positive.

Correlating physical and chemical characteristics with variations of the olive, the following conclusions were drawn: Small kernel olives yielded oil with low Iodine Value (77.8 to 83.8) and low Butyro scale readings. Medium size kernel olives yielded oil of higher I.V. (84.6-89.6) and higher Butyro scale readings.

Data on olive oil samples expressed from small and medium size kernel olives confirmed the following relation between glycerides percentage of linoleic acid and the saturated acids:

Small size kernels: 
$$\frac{\text{saturated}}{\text{linoleic}} = 1.70 \text{ to } 2.40$$
  
Medium size kernels:  $\frac{\text{saturated}}{\text{linoleic}} = 0.60 \text{ to } 1.30$ 

A comparison of the physical and chemical characteristics of the five annual productions 1956-1957, 1957-1958, 1958-1959, 1959-1960, and 1960-1961 indicates the following conclusions:

Olive oil samples from medium size kernel olives showed high Iodine Value and Butyro scale readings.

Olive oil from small size kernel olives showed low I.V. compared to that extracted from other varieties.

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