

**COMMERCIAL OILS,  
VEGETABLE AND ANIMAL.  
WITH SPECIAL REFERENCE  
TO ORIENTAL OILS**

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Commercial Oils, Vegetable and Animal. With Special Reference to Oriental Oils by I. F. Laucks

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# COMMERCIAL OILS VEGETABLE AND ANIMAL

WITH SPECIAL REFERENCE TO  
ORIENTAL OILS

BY

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TO  
**Professor Charles F. Mabery**  
IN GRATEFUL ACKNOWLEDGMENT  
OF EARLY TRAINING

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## PREFACE

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THIS book is intended primarily for the non-technical man in the oil trade. The writer has attempted to give in it the technical data and information required in every-day dealings in the oil trade, without mixing in a great mass of more or less purely scientific matter.

Trade rules and specifications have been given wherever such exist. The characteristics of the various oils (or constants as they are sometimes less properly called) which are given, are the maximum and minimum values within which most of the samples of oil that will be met with in practice will lie. In general, values which represent what might be termed "freaks" have been omitted. The idea has been to show what values can reasonably be expected, rather than to show the widest variations that can exist. In preparing these maximum and minimum values, determinations of many chemists have been compared, as published in standard text such as Lewkowitsch and Allen, in the technical press, and other sources.

The data on Oriental oils, which are now being imported at Pacific Coast ports, are for the most part results of work in the author's laboratory. Characteristics of these oils have been given separately from the above-mentioned average characteristics. This has been done because it has been found in many cases that a

so-called Oriental oil will differ from the same oil from other parts of the world, to which the oil trade has been more accustomed in times past. In some cases this is due to difference resulting from climate, soil, and other natural conditions. In other cases it is due to the handling the oil receives, sometimes the result of carelessness, and sometimes due to unavoidable commercial conditions.

The result in some cases is an oil different in some respects from the oil that commerce is used to. Objection is often made by buyers to such differences. But these Oriental oils have filled a great need in a crisis in the United States, and have won a place for themselves, and as such must be accepted by the oil trade. Buyers must not attempt to make Oriental oils conform to the standards of oil from other countries, but should rather draw new standards for these oils, which will fit their special characteristics.

There is a constant demand for closer grading of these oils. This demand will gradually be met as methods for obtaining and shipping these oils improve. In a commercial movement as new as this is, too much must not be expected at the start. The grading is now probably as close as can be under present methods of handling. Cooperation between buyer and seller will be the best means of improving conditions, and of holding this new trade for the United States in years to come.

I. F. LAUCKS.

SEATTLE, Sept., 1918.



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# COMMERCIAL OILS

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## CHAPTER I

VEGETABLE and animal oils, and fats (as distinct from mineral oils, or petroleums), are compounds of carbon, hydrogen and oxygen which are found naturally in all plants and animals.

The word oils is generally applied to the varieties liquid at ordinary temperatures, and fats, to those solid at ordinary temperatures. Oils and fats are chemical combinations of glycerin as a base with the so-called fatty acids.

The combination forms the so-called neutral oil or fat. There is a large number of different kinds of fatty acids. The different kinds of oils found in nature are due to the number of fatty acids. Any one oil generally has some one kind of acid predominant in it, and along with this predominant acid it will have besides a number of the other acids in smaller amounts. The different acids each have different properties, and impart these differences to the oils in which they occur. No one oil, however, has any fixed combination of the different fatty acids present in it, but the proportions of these will vary with the locality, soil, season, food (in the case of animals), and various other factors. This accounts for differences between the same species