Grades: According to country of origin and method of preparation for the market—color, acidity and impurities—the better grades of good bright color, low in acidity and relatively free from dirt and other insoluble impurities: Lagos and Red Sherbro (among the best), Bonny Old Clabar, Opobo are soft oils. Harder Oils: Congo, Niger, Old River, Gold Coast, and Liberia (poorest grade).

A Test for Color Readers

PROCTER THOMSON
Procter & Gamble Co., Ivorydale, Ohio

To secure concordant results between laboratories reading colors, the following three factors must be standard:

The background
The illumination
The observer

There has been some discussion as to the amount of abnormality which a color reader can possess and still read Lovibond colors in an acceptable fashion. This question is far from settled.

The writer thought it would be interesting to determine the variation in color vision among the members of the American Oil Chemists' Society in attendance at the New Orleans meeting. Accordingly, there were prepared a number of Kodachrome slides of various color blindness tests. The plates in the tests consist of numbers outlined in dots of one color against a background of other colors. The slides are not exact reproductions of the original plates. Although three sets of color photographs were taken and the best selected, the slides were not quite equal to the original plates.

The members were grouped within 40 feet of the screen (to minimize the effect of distance) and shown the slides, about ten seconds being allowed for viewing. After a suitable interval for recording the impression, the next slide was shown, and so on. Eighty-two members turned in test cards filled out. The results were as follows:

Slide Designation	Correct Figure	Number of Correct Answers	Penalty for Incorrect Answers
A	8	79	16
B	5	80	16
C	6	75	14
D	7	65	13
E	42	82	16
F	052	1	.2
G	86	46	9
H	56	79	16

The penalty values were set up to be proportional to the ease of answering (number answering correctly) and to yield approximately a zero grade if all were missed. There was only one card with the correct value for F, but the member who filled it out only graded 77 on the whole test, so there is an inference that he put the number on the card for his own information after the correct value was announced.

The grades group as follows:

99.8%—40 members	76.8%—2 members
90.8%—19 members	74.8%—3 members
86.8%— 6 members	73.8%—1 member
77.8%— 6 members	63.8%—3 members
77. %— 1 member	61.8%—1 member

It is evident that the color acuity of the members varies over a fairly wide range.

Abstracts

Oils and Fats

Edited by
M. M. PISKUR and SARAH HICKS

ANALYSIS OF A SPOTTED COW SHARK LIVER. Prog. Repts. Pacific Coast Stas. No. 55, 9 (1943). Iodine number of liver oil—97.8, unsaponifiable matter in liver oil—12.2%.

THE DETERMINATION OF FREE AND BOUND FAT IN FOOD, ESPECIALLY IN DRIED EGG YOLK. J. Grossfeld. *Z. Untersuch. Lebensm, 83,* 322-34 (1942). Foods contain both free and "bound" fats. Difficultly extractable bound fats are retained in the samples mechanically, colloidally, or chemically. To ext. the total fat from egg yolks hydrolysis with HCl is necessary. The Grossfeld method is recommended for total fat. This has been modified by the addn. of 10 cc. CCl_4 before acid hydrolysis, 40 cc. of benzine solvent are used and the fat is detd. on a 25 cc. aliquot. Total fat could also be separated after hydrolysis, by extn. with a 1:1 alc.: C_6H_6 mixt. in an extn. app. After detn. of P_2O_5 in the ext., corrections are made for the lecithin extd.

CHARACTERISTICS OF GOAT MILK FAT. A. Zeisset and J. Grossfeld. *Z. Untersuch. Lebensm. 83,* 385-99 (1942). Analysis of 169 goat butter samples obtained in different parts of Germany showed: n^{40} (Butyro) 40-42.2 (av. 41.3), total no. of low mol. wt. fat acids 34.5-45.5 (40.1), butyric acid no. 12.2-16.2 (14.1) and residue no. 21.2-31.3 (26). There was no significant differences in samples from different breeds. There was a weak negative correlation ($r = -0.46 \pm 0.05$) between n and residue no.; and a weaker neg. relationship ($r = -0.30 \pm 0.07$) between n and butyric acid no. When the av. residue and butyric acid nos. are used in the equation that