the others in order to obtain even comparable quantities of calories which are actually absorbed.

Summary

Weanling rats were fed diets containing various pure mono-, di-, or triglycerides at a 25% level for 10 weeks. The following results were obtained:

a) Mono-, di-, and triglycerides of corresponding fatty acid composition were of equivalent caloric efficiency.
b) The caloric efficiencies of the mono- and triglycerides of pure lauric or stearic acid were found to be low. This may have been due wholly or partially to poor absorption.
c) Autopsies and histological examination of the tissues of the animals revealed no abnormalities attributable to the consumption of any of these fats. Appearance of all animals was normal throughout the experiment.
d) The body fat of the animals was the same regardless of the type of glyceride structure fed. However the type of body fat deposited reflected, in part, the fatty acid component of the dietary glyceride.

From these results it is concluded that, except for differences in caloric value, mono-, di-, and triglycerides of corresponding fatty acid composition, are nutritionally equivalent.

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Addendum

Since carrying out the work reported here, we have investigated further the method for determining monoglycerides. In confirmation of the work of Kummerow and Daubert (15), we have applied the method of Handschumaker and Linteris to fats which should be monoglyceride free and have obtained apparent monoglyceride values of up to 0.5%. Thus the analytical values for the monoglyceride content of the perirenal fats reported in this paper are within the experimental error of the method.

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Controlling the Halogen Ratio in Hanus or Wijs Solutions

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IT is well known that the iodine value, whether determined by the Hanus or Wijs methods, is affected by the ratio of the halogen content, iodine to bromine or iodine to chlorine, in Hanus or Wijs solutions. To obtain accurate results it is recommended that the relation I/Br or I/Cl be not higher than unity.

The conventional procedure for determining this ratio is as described in the A.O.C.S. Official Method Cd 1-25, in which the reagent is titrated before and after chlorination.

A method which is possibly more convenient than checking the ratio during the preparation of the solutions has been developed at the Institute. It consists of two titrations: a) iodine titration in the presence of the other halogen by the modified Winkler's method; b) iodometric titration of the total halogen content in the same solution in the usual way.

Procedure

First Titration. Iodine content, buret reading = A ml.

a) Pour about 150 ml. of saturated chlorine water into a 500-ml. Erlenmeyer flask and add some glass beads.

b) Pipet 5 ml. of the Hanus or Wijs solution under analysis into the flask containing saturated chlorine water. Shake and heat to boiling.

c) Boil briskly for 10 minutes, cool and add about 30 ml. of 2% sulfuric acid and about 15 ml. of a 15% KI solution.

d) Mix well and titrate immediately, with 0.1 *N* thiosulfate solution, using starch indicator solution.

Second Titration. Total halogen, buret reading = B ml.

a) Pour about 150 ml. of recently boiled distilled water into a clean and dry Erlenmeyer flask, add about 15 ml. of 15% KI solution, and pipet 20 ml. of the same Hanus or Wijs solution into the flask.

b) Mix well and titrate immediately with 0.1 *N* $Na_2S_2O_3$ solution.

Calculate the halogen ratio by the formula:

$$R = \frac{2A}{3B - 2A}$$

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