

truding tail of the encaged rat is washed, if necessary, with water and dried, a portion of its surface is painted with the diluent and allowed to dry. One of the superficial veins in that area is then punctured with a sharp lancet on which the diluent has also been dried, and as the blood wells up freely it is drawn up into an erythrocyte pipette, the stem of which had previously been filled with the diluent to the 0.5 mark, until the diluent column reaches the 1.0 mark. The diluent is then added to the 101 mark, giving the usual 1:200 dilution. After shaking the pipette for not less than three minutes, a direct count is made of the red blood corpuscles and platelets in the same preparation. The platelets are allowed at least ten minutes to settle. Although the vast majority of the latter are distributed singly, preparations are considered good if not more than six are found in the occasional clump. The primary essentials for consistent count are: a scrupulously clean counting chamber and pipette, the filtering of the diluent³ immediately before use, the presence of the anti-coagulant in the pipette before the entrance of the blood, and a free flow of blood from the wound.

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A technique for the study of fat production in animals.

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The study of the relation of food to the quality of fat laid down in the animal body is not new. The chief criticism, however, which applies to most of the past investigations concerns

³ The diluent used is that suggested by Rees, H. M., and Ecker, E. E., *J. Am. Med. Assn.*, 1923, lxxx, 621:

Sodium Citrate	3.8 gm.
Formaldehyde	0.2 cc.
Brilliant Cresyl Blue	0.1 gm.
Distilled water q. s. ad	100.0 cc.

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the number of variables which have entered into the experiments; particularly is this true in the experiments performed with farm animals and with mixed feeds of variable composition. We have approached the problem by means of the more recent methods of animal feeding and have adopted a standard basal ration in which protein and inorganic salts have been kept as constant as possible. After evisceration, the fat from the whole animal has been rendered in an autoclave kept under constant pressure for 14 or 15 hours. Our results have shown marked variations due to high carbohydrate feeding and the feeding of different oils. For example, with a preponderance of starch in the diet, a characteristic "hard" fat is obtained, while with the different oils typical "oily" fats are obtained. These "oily" fats give varying iodine numbers and refractive indices depending upon the oils fed. Solid fats are being fed in other diets. The conversion of an "oily" fat into a solid fat with high carbohydrate feeding is at present being studied.

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The alkaline isopotential point of the bacterial cell.

Preliminary note.¹

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Earlier studies on the electrophoretic migration of bacterial cells suggested the probable existence of a second isopotential point in the extreme alkaline range but results were irregular and uncertain.² Later work shows that such inconsistencies are due to a phenomenon observed in another connection,³ the creation through the buffering power of the bacteria of zones of diminished alkalinity in their immediate vicinity. This effect

¹ Studies here reported were aided by a grant from the Loomis Research Fund of the Yale School of Medicine.

² Winslow, C.-E. A., Falk, I. S., and Caulfield, M. F., *J. Gen. Physiol.*, 1923, vi, 177.