

obtained with an ordinary Ostwald viscometer after blending of egg-white at high speed. Anyhow, concentrations of proteins and minerals in egg-white seemed to be too high to allow a simple application of general laws governing the viscosity of glycoproteins.

The study of egg-white osmotic pressure and mineral content (tables 3 and 4) showed that, with NaCl treatment at least, the egg-white plumping occurred according to the Donnan equilibrium. The increase of osmotic pressure (320 mOsm) observed with NaCl relatively to CaCl<sub>2</sub> or MgCl<sub>2</sub> (301 mosm) was a supplementary evidence for the binding of divalent cations to organic molecules.

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## VI. — Economics

### ECONOMIC INVESTIGATIONS OF THE TECHNICAL INSTITUTE FOR AVICULTURE

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Forecasting of the future necessitates a thorough analysis of the evolution mechanisms. The task of the I. T. A. V. I. is therefore to examine closely the various elements necessary to establish the synthesis of a global phenomenon. With this end in view, the Division of Economics of I. T. A. V. I. carries out series of investigations among poultry producers, and the results are published in various documents. The main object of this work is to study the production cost and cost prices.

At the beginning, the investigations were empiric, but as the work proceeded, the data obtained enabled us to realize the first analysis of the cost-price of the egg production. The conception, sampling, collection of informations, supervision of questionnaires, have needed the contribution of several engineers and technicians.

At present, the investigations of the I. T. A. V. I. (permanent or conjunctural) deal with the production of broilers and other birds. New methods are used, such as « panels » allowing determinations of the continuous development of techniques, production costs and cost-prices.

As regards the egg production, it has been possible to determine the most fitted rearing and breeding conditions and to reduce the cost-price, in particular by defining the optimum size for the production units.

In the field of broiler production, the « panels » have been used to define accurately different important factors affecting the cost-price.

However, the work of the I. T. A. V. I. is not only to gather informations but, above all, to establish a permanent dialogue with the whole profession, allowing, for instance, important decisions to be taken such as changes in a given production system according to the general economic situation.

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