

## I. INTRODUCTION

Caponisation of poultry is by no means a practice of recent origin, as early as 37 B.C. capons were mentioned by Cato and Varro as a class of poultry. In 1653 Gervase Markham stated that caponisation was a simple and safe operation, performed in a similar manner to the modern method of a surgical caponisation. In 1750 capons were quoted as being excellent foster mothers as was stated in Mowbray's "Treatise on Domestic Poultry" in 1837. It was only at the end of the nineteenth century that capons were recognised as good table birds. Greiner in 1903 wrote a pamphlet "Capons for Profit" which gave a very full account of all aspects of capon production.

In 1938 Lorentz (20), found that estrogens, administered to poultry of both sexes, resulted in a greatly increased blood lipid content, and Etenman et al. (10), in tests with various hormones, showed that stilbestrol was outstanding from this point of view. Not only this but stilbestrol also had a feminising effect if given in sufficient quantities. This was naturally grasped as a more convenient, and safer method of caponisation than surgery. It was not before 1942 however, that a sufficient quantity of synthetic oestrogen was produced to make hormonal caponisation commercially feasible.

Since then a great deal of work has been done in the U.S.A., and Great Britain on many aspects of the problem. Notable among these investigations are the best type of synthetic hormone to use, the physiological basis of the reactions, and different methods of administration. These will be discussed in greater detail. There is a noticeable lack of information with regard to the optimum level and time of application, and this is the purpose of this paper.

It will also be of great interest to observe the effects of the wet tropical climate of Trinidad on the weight gains of the capons and compare the results with those pertaining to more temperate regions. Lee et al. (16) stated that high atmospheric temperatures (especially above 90°F.) caused an increase in respiration rate, rising to 160 resp./min. at 115°F., and an increase in rectal temperatures. According to Mellen & Hill (21), the basal metabolic rate is raised by estrogen administration, which could have an adverse effect. Lee et al. (16) also observed that the increases in respiration rate, and body temperature at high atmospheric temperatures were further aggravated by a high humidity. This climatic condition is quite common in Trinidad during the wet season (June - December).