

INTRODUCTION

The principles of Progeny Testing were known to man long before the days of Christianity, and have been extensively employed in the breeding of cattle and sheep in Great Britain and America. Only in comparatively recent times, has progeny testing been used in poultry breeding under temperate conditions, and never, as far as can be ascertained, to poultry breeding in the wet tropics.

Much has been written on the merits of Progeny Testing, (Davidson 1925, Knox 1933, Warren 1932, Goodale 1938, Hays 1952, Rice et al. 1953, Lush 1949, Kelly^e 1949, Mann 1953 and Hutt 1949). Rice et al. sum up the position very well by quoting:- "Individuality tells us what an animal seems to be, his pedigree tells us what he ought to be, but his performance as a breeding animal, tells us what he is".

Progeny testing to be properly carried out, is both laborious and expensive. Many workers have attempted to economise by reducing the numbers of observations and records which have to be kept, without reducing the accuracy to any extent. Warren, (1932) emphasised the value of high intensity during the first month of laying, as a useful method of improving fecundity. Knox, Jull and Quinn (1935) concluded that production from first egg to March 1st, and production during August and September, at the end of the pullet year, were highly significant factors concerned in egg production. Goodale (1938) found that success, in breeding White Leghorns for high fecundity, resulted from selection based largely on family

records, combined with Progeny Testing. Hays, (1947), stated that the daughters from tested sires laid on the average, 9 more eggs during the year, than the daughters of either partially or untested sires. What is even more important, is that he found no significant difference in the production of the daughters of partially tested sires, compared with the daughters of untested sires. On the other hand Lerner, (1947), found that the daughters of fully tested sires averaged 7.2 more eggs per year than those of untested sires; and the partially tested sires averaged 1.1 eggs more per year, than the progeny of untested sires. It therefore appears that partial testing is of little or no value to the poultry breeder, interested in egg production. Lerner, (1951), however has shown that selection on the basis of egg weight in the first November of life, is as efficient as selection on the basis of spring egg weight.

Hagedoorn (1950) advocates a system of "nucleus breeding" for all classes of livestock, including poultry, as being easily managed, inexpensive and yet very efficient. The policy in the work reported here, is to carry out full testing of the cocks for several years to come. Once the standard of the flock has been further improved, then it is possible that the Hagedoorn system may be introduced.