Productivity of Local Pigeon Fed with Cafetaria Method in Intensive Rearing

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ABSTRACT

This experiment has been done to evaluate productivity of local pigeon fed with corn or commercial feed using cafeteria method in pre-laying, hatching and production (squab suckling) phases in intensive rearing. There are 68 couples of local pigeon used in this experiment, and each couple is placed in individual cages. The results indicate that average of egg production is 1.8 eggs/couple/period, average of egg weight is 17.7 g, fertility is 96.6%, hatching rate is 77%, embryo mortality rate is 23%, interval period from laying up to hatching and suckling is 51 days, 31.4 days for period of hatching, and 17.6 days for period without (non) hatching and suckling. Each couple of local pigeon need 73.04 g feed/day in pre-laying phase, 60.38 g feed/day in hatching phase, and 91.75 g feed/day in suckling two squabs; these are based on the total feed consumptions of corn and commercial feed. During hatching phase, corn consumption is the same as commercial feed consumption in week I, II and III. During non-hatching phase, corn consumption differs from that of commercial feed consumption. During this phase, corn consumptions are the same in all weeks (I=II=III=IV); commercial feed consumption at week II is the lowest, but there is no different in commercial feed consumption at the other weeks (II<I=II=III). During squab suckling phase, there are differences in pattern of corn consumption from that of commercial feed consumption; corn consumption increases from week I up to week III (I<II<III=IV), commercial feed consumption at week I-III are lower than that at week IV (I=II=III<IV). In all phases, corn is more preferred than commercial feed, but the commercial feed can still be given and the best ratio between corn and the commercial feed is 60:40%. Squab weight increases up to the 4^{th} week, then decrease in the 5^{th} week. Growth rate is the highest at the 1^{st} week, but then decreases from the 2^{nd} up to the 5^{th} weeks with the negative growth rate occurs at the 5^{th} week. Squab growth rate follows a quadratic pattern with this formula: $Y = 11.2 + 121t - 13.3t^2$. Feed conversion ratio up to the age of 4^{th} week is 5.7. It is concluded that squab selection on the basis of slaughter weight can be done at the 4^{th} week old.

Key words: pigeon, productivity, consumption, squab growth rate, and cafeteria feeding

INTRODUCTION

Commonly, the owner of pigeon feed their pigeons just with corn or other grains such as rice grain. Corn or other grains do not meet pigeon nutrient requirement for reproduction. However, there is limited information of feed requirement of local pigeon.

Feeds that are suitable with the pigeon needs in intensive rearing are necessary to obtain their productivity as expected. It is expected that the pigeon lay 1-3 eggs per period with average is 2 eggs per period (Levi, 1945). Cock and hen hatch the eggs with hatching time allocation for hen are longer than the cock. The first egg hatch 17-18 hour after the eggs are laid, and the second egg hatch 48 h after the first eggs are laid (Blakely and Bade, 1989). Hen will lay again after the squab reaching the age of 2 weeks. Both cock and hen suck their squab.

The pigeon is able to consume simple feeds consisting of grains and a little good grit; the pigeon also needed clean water (Anggorodi, 1995). Drevjany (2001) also reports that pigeon could be fed with feed that was made up of crumble ration or mixed of grains, minerals, grit and water. Among the feeds, pigeon liked grains such as corn, soya bean, peanut and wheat grain (Alwazzan, 2000). A good feed for pigeon contains nutrient composition as follows: 13.5% crude protein, 65% carbohydrate, 3.5% fibre and 3.0% fat; minerals, vitamins and grit also need to be added.

There are no pigeon feeds available in poultry shop that is produced commercially. A mixed of corn and broiler diet can be given to the pigeon during production phase. Those feeds are