

## **B-09: Effect of three types of incubators on hatchability and chick quality**

C C M Gunawardhana<sup>1</sup>, S P Wimalasiri<sup>2</sup>, Thakshala Seresinhe<sup>1</sup>, A. Manawadu<sup>1</sup>  
(<sup>1</sup>*Dept of Animal Science, Faculty of Agriculture, University of Ruhuna, Kamburupitiya,* <sup>2</sup>*Bairaha Farms, Katana*)

Four mult-stage incubators belonging to 3 stages of development were compared for hatchability and chick quality. Eggs from 2 commercial breeds (Hybro and Shaver) of the same age reared in the same farm were used in the experiment. Average weight of eggs was 60.5 and 62.5 for Hybro and Shaver respectively. The total number of eggs per setter was 168, 165, for Jamesway and Chick-Master (latest models), and 180 eggs for Matterhorn No.1 and 2 (old models) incubators respectively. Moisture loss at day 10 and day 18, hatchability of fertile eggs, percentage of first grade chicks and loss of potential hatchability were measured. Random samples of eggs that failed to hatch were subjected to a break out analysis to detect causes contributing to lowering of hatchability.

Matterhorn No.2 belonging to the oldest generation of the 3 types compared, gave the best results in terms of hatchability (90%) and chick quality (41.4g). The latest models potentially capable of giving higher hatchability and better quality chicks have failed to do so because they were not being properly operated. Neglect of certain manufacturer's recommendations are one omission. Loss of potential hatchability was mainly due to the effect of common hatcher used to hatch eggs in the experiment.

Estimation of moisture loss from incubating eggs provides an excellent means to control hatchability and chick quality but compliance with manufacturer's recommendations is essential in achieving a good internal environment in a given brand of incubator.

Shaver showed better hatchability and chick quality as compared to Hybro due to heavier eggs of better quality. Much lower rate of egg production by Shaver may have contributed to better egg quality and size.