Effect of Transporting Stress and Pre-slaughter Practices on Meat Quality of Broilers in Chittagong, Bangladesh

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A Production Report Submitted as per approved styles and contents

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Contents

Chapter	Topics	Page no
	Acknowledgement	III
	Contents	IV-V
	Abstract	VI
Chapter-I	**Introduction**	**1-5**
Chapter-III	**Materials and Methods**	**06 - 11**
	3.1 Statement of the experiment	06
	3.2 Collection of meat samples	06
	3.3 Determination of meat quality of collected samples	06
	3.3.1 Determination of moisture content of meat samples	07
	3.3.2 Determination of P^H of meat samples	07
	3.3.3 Determination of water holding capacity of meat samples	07
	3.3.4 Determination of extract release volume (ERV) of meat samples	08
	3.3.5 Estimation of tyrosine value of meat samples	41
	3.3.6 Estimation of glucose level form blood sample	09-10
	3.4. Estimation of thiobarbituric acid (TBA) number or value of meat	10-11
Chapter-IV	**Results**	**12-14**
	4.1 Meat quality of broiler chickens	12
	4.1.1 Theroad distance (RD) and transportation time (TT)	12

	of broilers on meat quality	
	4.1.2 Theroad distance (RD) and transportation time (TT)of broilers on meat quality	13
	4.1.3. The tyrosine value (TV) of broilers meat	14
	4.1.4 The thiobarbituric acid (TBA) values of broilers meat	14
Chapter-V	**Discussion**	**15-19**
	5.1 The effects of road distance (RD) and transportation time (TT) of broilers on meat quality	15-16
	5.2 The effects of pH, moisture level, water holding capacity (WHC), extract release value (ERV), blood glucose (Glu) level of broiler chickens on meat quality	16-17
	5.3 Effect of tyrosine value (TV)on broiler meat quality	17-18
	5.4 Effect of thiobarbituric acid (TBA) values on broiler meat quality	18-19
Chapter-VI	**Conclusion and Recommendations**	**20-21**
	References	**22-28**
	Biography	**29**

List of Table

Serial No	Name of table	Page no
1	The RD, TT, moisture, pH, WHC, ERV, TV, Glu and TBARS of broiler meats from different markets	12

ABSTRACT

The study was undertaken to investigate the quality of broiler meats procured from four different markets of Chittagong Metropolitan Areas (CMA), *i.e* Bahaddar Hat (BH), Pahartoli (PHT), Jhaowtola (JT) and Riazuddin bazar (RB). A twenty shops were selected randomly, and two live broilers of similar age were collected from each shop of CMA to conduct the experiment. Meat samples taken from the collected live broilers were assessed to measure the meat quality, based on the moisture content, pH value, water holding capacity (WHC), extract release value (ERV), tyrosine value (TV) and thiobarbituric acid value (TBA) of meat. The data revealed that, except for TV and TBA values, the other parameters say-moisture level, pH value, WHC, ERV of broiler meat were not influenced ($P>0.05$) by market places or treatments. The TV and TBA values differed ($P<0.01$) significantly between treatments or markets. The highest TV value (0.66) was found in the meat of PHT market while lowest TV value (0.54) being in the meat of BH and JT markets. The TBA value was significantly improved ($P<0.01$) in the meat of BH (0.051mgMDA/100g) and JT (0.047mg MDA/100g) markets compared to the meats of other market in this study. The values of TBA appear to be in a normal range (0.5 to 1.5 mgMDA/kg), and it has no possibility of affecting the meat quality of broilers. Apart from these, the road distance (RD) between broiler producing farms and marketing places, and the transporting time (TT) spent during travelling for marketing birds, were also assessed in this study. The RD and TT were affected ($P<0.01$) by market places. It implies that broilers carrying from long distance areas at the expense of long time could have a potential to impose stress on the birds and liable to influence meat quality of broilers. From the study, it can be concluded that, the quality of broiler meat of different markets appears to be good in quality based on the chemical evaluation, though carrying distance and transporting time of broilers might influence the quality.

Key words: meat quality, market, broilers, water retention capacity, p^H, TBA value, tyrosine value