

THE EFFECTS OF ENVIRONMENTAL ENRICHMENT AS PERCH AND LITTER ON THE WELFARE OF BROILER CHICKENS

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ABSTRACT

The welfare of broiler chickens is of great concern in recent times. The main reasons are the high densities of birds in broiler houses and their selection for rapid growth resulting in leg disorders. This results in locomotory problems and in severe cases, food and water is deprived due to this. It is known that in layers provision of perches and substratum for ground scratching reduces leg problems and feather pecking. No studies have been done in this regard for broilers. The objective of this study was to look at the effects of the provision of enrichment in the form of perches and substratum for ground scratching and dust bathing from the young age in broiler welfare.

Sixty A.V.N-34 broiler chickens were housed from week 1-6 in cages in three groups: litter, perch and remaining without these two factors in 12 pens. The stocking density was $10\text{cm}^2/\text{chick}$. During the growing period behaviour, welfare parameters- walking ability, fluctuating asymmetry and growth parameters were recorded at weekly intervals. Tibial dyschondroplasia, leg problem were assessed at the end of the experiment.

Behavioural observations show, unlike field and cage study with slow growers, in fast growing broiler strains the ontogeny of behaviour is similar but ground scratching, perching and sparring declined after 4 week. Preening and dust bathing were performed at low level up to the end of the experiment.

Broiler chickens from litter and perch groups showed evidence of better leg condition. Tibial dyschondroplasia was less in birds that had access to perches, ground scratching and dust bathing activities. In addition, better foot and feather condition was also observed for birds that had access to perches, ground scratching and dust bathing activities. The low leg problem leads to better gait up to their end of the growing period. The feed conversion value obtained for the litter group was less than 2, indicating they are more efficient in converting food than other two groups. Dress weight was also higher for the litter group.

Thus the provision of perches, substratum for ground scratching and dust bathing from early ages improve broiler welfare in confinement.

CONTENTS

<i>ABSTRACT</i>	<i>i</i>
<i>ACKNOWLEDGEMENT</i>	<i>ii</i>
<i>CONTENTS</i>	<i>iii</i>
<i>FIGURES</i>	<i>v</i>
1.0 INTRODUCTION	1
1.1. Development of poultry	1
1.2. Animal welfare	3
1.3 Welfare measurement	5
1.3.1 Behavioural indicators.....	5
1.3.2 Physiological indicators.....	6
1.3.3 Fluctuating asymmetry (FA)	7
1.4 Poultry welfare problems.....	8
(a) Restriction in freedom of movement	8
(b) Restriction in specific behaviour	9
(c) Feather pecking.....	12
(d) Abnormalities in growth and body form	12
1.5 Welfare problems in broilers	14
1.6 Improvement in poultry welfare	16
1.7 Aim and Objective	19
2.0 MATERIALS AND METHODS	20
2.1. General methods	20
2.1.1. Breed and housing	20
2.2. Experimental design	20
2.2.1. Feed, water intake, weight gain measurements.....	22
2.2.2. Morphological measurements relevant to animal welfare	23
2.2.3. Behavioural measurements.....	25
2.3. Statistical Analysis.....	27
3.0 RESULTS	28
3.1 Effect of Environmental enrichment on behavioural activities	28
3.2 Effect of environmental enrichment on welfare parameters.....	31
3.3 Effect of environmental enrichment on growth and other parameters	34
4.0 DISCUSSION	37
4.1 Ontogeny of behaviour	37
4.2 The effect of enhancing the activity on welfare parameters.....	42
4.2.1 Influence of ground scratching.....	42

4.2.2 Influence of dust bathing	43
4.2.3 Influence of perching activity	44
4.3 The effect of enhancing the activity on fluctuating asymmetry	45
4.4 The effect of enhancing the activity on growth parameters.....	46
4.5 Conclusion	47
5.0 REFERENCES.....	48