Commercial Poultry Production and Management

Contents:

Circadian Control of Egg-laying: Hatching and Rearing • Moulting: How, When and Why Chickens Moult • Controlling Chicken Egg Production • Feeding Programmes for Laying Hens: Molting Programmes • Avian Anatomy and Physiology • Management of "Out of Season" Broiler Breeder Hatches in Open-Sided Housing in Areas of the World at and Above 30° From the Equator • The Relationship of Body Composition, Feed Intake, and Metabolic Hormones for Broiler Breeder Females

Breeder Nutrition and Chick Quality: The Financial Effects • Influence of Feed Allocation • Broiler Breeders - Feeding Breeders to Optimise Chick Quality • Energy Costs Associated with Commercial Broiler Production • Nutrient Digestibility of Broiler Feeds Containing Different Levels of Variously Processed Rice Bran Stored for Different Periods • Meeting the Nutrient Requirements of Broiler Breeders • The Only Good Broiler Breeder Egg is a Fertilized Egg • Weighing Broiler Breeder Females Post-Feeding • Health Implications for Higher Density Broiler Production

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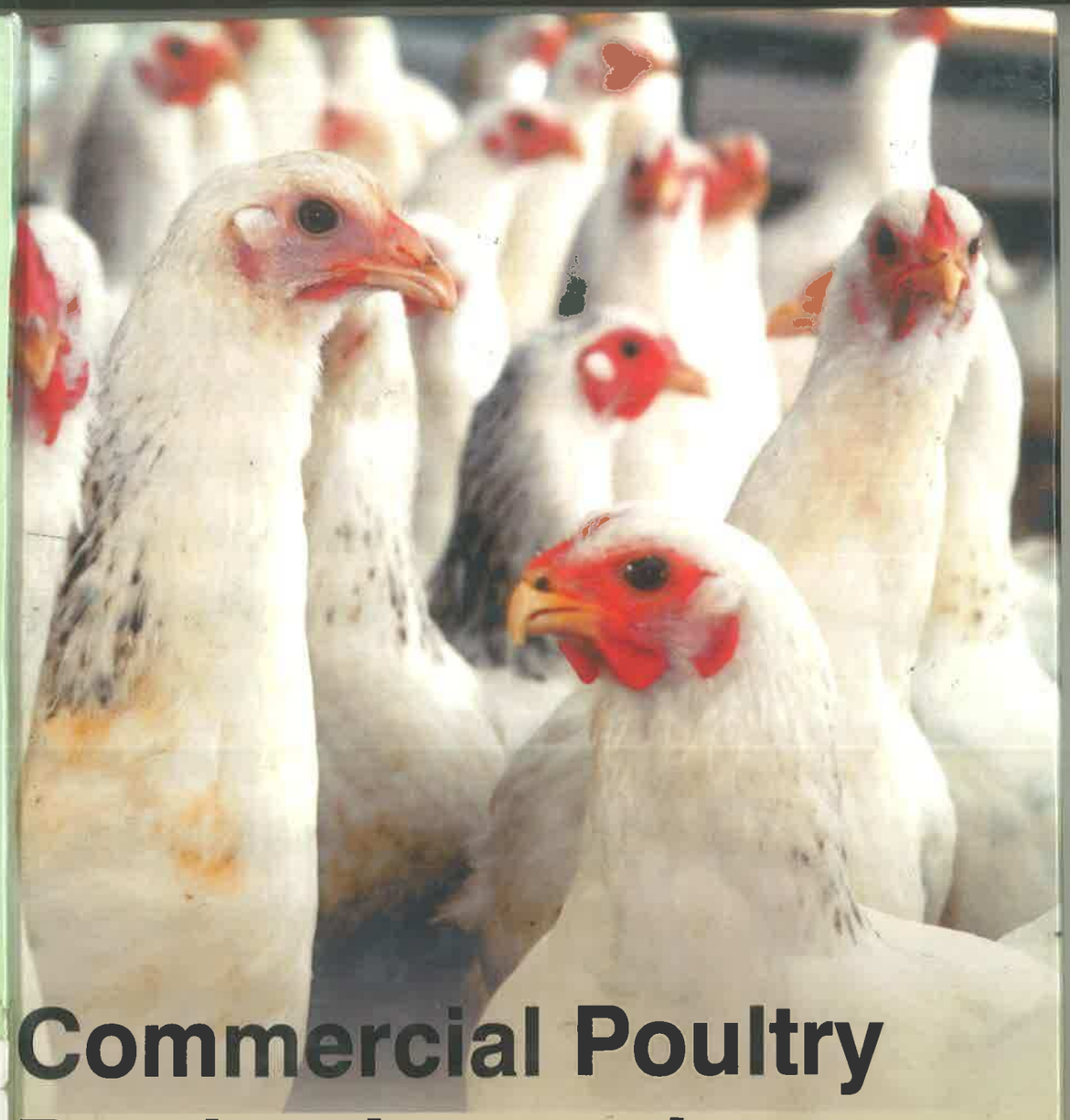

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Editor

Encyclopaedia of Broiler Breeder Production: Production, Feeding and Management Techniques: Series

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Preface

The amount of time required for broilers to reach a given target weight has been considerably reduced due to improvements in genetics, nutrition and management. At the same time, processing bodyweight requirements have become more precise in response to market demand. Although these two factors would seem to promote a simpler route to an improved final product, producing a target weight broiler in a reduced amount of time can present a challenge to the grower. For example, flock weight differences of 115g (0.25lb) and 230g (0.50lb) are commonly seen at target weights of 1815g (4.00lb) and 3405g (7.50lb), respectively. These deviations in flock weight occur even though the same genetics and feed source are being used within a production complex, significantly affecting economic output. So why do these differences in target weight occur? Variation in the in-house environment, which is largely influenced by ventilation, significantly affects broiler performance. The grower is responsible for managing ventilation.

Nutritional decisions for breeders need to take account of the overall economics of the whole production cycle. Table shows the changes in hatchery and broiler performance that are required to equalise the effect of a 1% increase in breeder feed cost on the profitability of the whole production cycle. Only one of these changes is required to have the necessary economic effect; in practice all are likely to move positively making the measurements of any one change difficult. The calculations are done under typical UK 2003 conditions and they show quite clearly that small improvements in bird performance are required to 'pay' for more expensive breeder feed. Conversely, apparent savings in breeder feed cost can readily lead to an overall loss if small changes in broiler performances are ignored. Similar economic analyses have been conducted by Mississippi State University which, based on US integration 2002 costs, demonstrates