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A.K. Panda & S.V. Rama Rao



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Preface

The rapid advances in genetic selection have resulted in faster growth in broilers and higher egg production in layers. Management, Health and Nutrition are the key factors for expressing the genetic potentiality of the bird. Feed represents the greatest single expenditure (65-80 %) associated with poultry production. Therefore, the use of well balanced feed has become a common practice in the commercial poultry industry for optimizing the performance. Feed cost is the major constraints but a greater mean for manipulating production cost and making poultry enterprise profitable. Poultry nutritionists thus, are consistently exercising their expertise for accurate feed formulation to maximize the economic efficiency. The availability of low priced-high quality feed ingredients is critical to the poultry industry for competitive and sustainable growth to meet the demand for high quality animal protein. The advance made in the field of biotechnology has also provided new opportunities for enhancing the efficiency and productivity of the bird through improved nutrition. Quality begins with a balanced ration that is being prepared to meet the target species nutritional requirements. Raw material quality had always been a major constraint in the feed industry. Therefore, there had been continuous refinement in nutrition and feeding practices of poultry.

The purpose of the book is to educate the poultry farmers, feed manufacturers, students, teachers, researchers and all those associated with poultry enterprises about the available feedstuffs that can be used for making a wholesome balanced nutrient dense diet for poultry. Besides a liberal supply of well-balanced feed, its effective utilization by bird is equally important. Feed formulations in the modern poultry practices also contain a range of feed additives, which are not dietary

essential but supplemented in the poultry feed as they have an influence on poultry performance and health. Many feedstuffs contain certain antinutritional factors which limits their use as poultry feed but detoxification of feedstuff enhances their limits of use. The mixed feed preparation requires certain processing for its optimum utilization. Pelleting of mash form of broiler feed into pellet or their crumble form meets the objectives of feed processing. The basic purpose of feed formulation is to prepare a balanced feed which support optimum performance in terms of either meat or egg production with best economic efficiency. As feed cost is the single largest cost in poultry production, prevention of feed wastage which in turn improves flock feed conversion and reduces nutrient losses is a necessity. In feed manufacturing quality begins with a balanced ration prepared by qualified nutritionists that meets the nutrient requirement of a given species. Poultry may be exposed to pesticide residues from feedstuffs and one of the major objectives of poultry production is to produce safe food (meat and egg) for human consumption at an economical price. From a nutrition point of view, the most obvious strategy is to feed birds to match the requirement (precision feeding) to improve the efficiency of bird's nutrient utilization and to reduce excretion of nutrients to the environment. We hope, the information contained in the book will be helpful to the all those concerned with poultry.

A. K. Panda
S. V. Rama Rao

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IU	International units
K	Potassium
Kcal	Kilo calories
Kg	Kilogram
Lys	Lysine
ME	Metabolizable energy
ME _N	Nitrogen corrected ME
Met	Methionine
mg	Milligram
Mn	Manganese
MOS	Mannan oligosaccharides
MT	Million tonnes
N	Nitrogen
NFE	Nitrogen free extract
NM	Normal maize
NRC	National Research Council
NSP	Non starch polysaccharides
P	Phosphorus
PPM	Parts per Million
PPM	Phytate phosphorous
PUFA	Poly unsaturated fatty acid
QPM	Quality Protein Maize
SEM	Standard error of mean
TCA	Tri carboxylic acid
TMA	Trimethylamine
TP	Total Phosphorous
TSAA	Total sulphur amino acid
W/W	weight by weight
WK	week
WL	White Leghorn
Zn	Zinc



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