

A RAPID PROCEDURE FOR THE DETERMINATION OF NET PROTEIN UTILIZATION
(N.P.U.) WITH NEW HAMPSHIRE CHICKS. J. Edgar Braham*, Ricardo
Bressani and Miguel A. Guzmán*. Institute of Nutrition of Central
America and Panama (INCAP), Guatemala, Central America.

The possibility was investigated of using chicks for the determination of Net Protein Utilization (N.P.U.) with the method described by Bender (Biochem. J. 53: vii, 1953) for rats. The nitrogen/water ratio in the entire animal was determined in male New Hampshire chicks ranging in age from one to thirty-five days fed a 20% protein-commercial concentrate. The birds were killed at weekly intervals, weighed to the nearest tenth of a gram and partially dissected to facilitate drying at 100° C to constant weight. Total nitrogen was determined in the dry carcass by the Kjeldahl procedure. High correlations were observed between age and dry weight, age and total nitrogen and age and nitrogen/ water ratio. Similarly, total nitrogen correlated very well with dry weight and total water content. Thus, the total nitrogen could be predicted with a high degree of accuracy using either dry weight or water content data. These results indicate that Bender's method for the determination of N.P.U. utilizing rats works well with chicks, at least at the protein level tested.