

Age Changes in Digestibility of Nutrients in Ostriches

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A digestibility study was conducted with 3-, 6-, 10-, and 17- week old and 30 month old ostriches. Two methods were used to determine digestibility: the total excreta collection method and a marker method, using chromic oxide. No significant difference between methods used to determine digestibility was detected. One diet was fed to all birds, irrespective of age. The diet contained 24.1% crude protein, 7.2% crude fat, and 33.5% neutral detergent fiber (NDF). A 3- or 5-day adjustment period was used before excreta were collected. The experiment consisted of two parts conducted at different time. Two replicates per age were used in each part, resulting in two replicates per age for the experiment. There were at least two birds per replicate, with a maximum of 5 birds per replicate 3 and 6 weeks of age. Apparent values for metabolizable energy (ME) of the diet, and digestibility of NDF and fat were determined. The formulated ME of the diet (poultry ME basis) was 1983 kcal/kg. The apparent ME of the diet, determined with ostriches, were: 1712, 2221, 2701, 2730, and 2809 kcal/kg at 3, 6, 10, 17 weeks and 30 months of age, respectively. Determined apparent fat and NDF digestibilities were: 44.5%, 74.3%, 85.4%, 91.2%, and 92.8% and 6.5%, 27.3%, 51.2%, 58.1 %, and 61.7%, respectively at 3, 6, 10, 17 weeks and 30 months of age.

Key words: ostriches, apparent digestibilities, fiber, energy, fat