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Effects of Dietary Protein Levels on the Nutrient Digestibility at Different Sites of Chicken Intestines

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The present study was conducted to investigate the effects of dietary protein levels (0, 10, 15, 20 and 30%) on the digestibilities of crude protein, crude fat, nitrogen-free extract and ash at different sites of fistulized chicken intestines. Chickens were fistulized to either the middle part of jejunum (MJ), distal end of jejunum (DJ), middle part of ileum, distal end of ileum or distal end of rectum. Intestinal digesta were collected from each site of intestine, and contents of crude protein, crude fat, nitrogen-free extract and ash were measured. The true digestibility of crude protein in intestinal digesta at MJ and DJ in the 10% group and at MJ in the 15% group was significantly lower than those in the 30% group. The digestibility of crude fat in intestinal digesta at MJ and DJ in both the 0 and 10% groups were significantly lower than those in other groups. The digestibility of nitrogen-free extract at MJ and DJ in the 0% group and at MJ in the 10% group were significantly lower than those in other groups. The digestibility of ash at all sites of intestines in the 0% group showed the lowest value among groups. These results clearly demonstrate that dietary protein level influences the digestibilities of protein, fat, carbohydrate and ash in chicken intestines.

Keywords: [carbohydrate](#), [digestibility](#), [fat](#), [intestine](#), [protein](#)

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