

Digestibility of Meat and Bone Meal of Poultry Origin for Mink (*Mustela vison*), (F160)

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Report concerning digestibility of poultry meal and bone meal (Poultry Meat Meal 50).

The trial was ordered and paid by Harimex b.v., The Netherlands.

The purpose of the trial was to establish the apparent mink digestibility of crude protein (CP) and amino acids.

Material and method

The samples of meat and bone meal (MBM), labled "Geflugelmehl", was received at the beginning of November 2002.

The trial was conducted as regression design, consisting of 5 groups of three animals each. Adult male mink of the colour type Scanbrown were used. The diets contained MBM equaling from 0 to 53% of the dietary total crude protein (table 1).

Table 1. Formula for diet 1 to 5 (% before addition of water)

Feed ingredients	Group 1	Group 5
Meat and Bone meal (MBM)	0.0	23.4
Cod filét	80.1	52.9
Mais starch	8.8	10.4
Soya oil	8.8	8.8
Glucose	1.0	1.2
Cellulose	0.5	2.4
Vitamin mix	0.4	0.4
Mineral mix	0.5	0.6

The trial consisted of a 7 days long preliminary period and a 4 days long fecal collection period. Diet allowance was 300 kcal. metabolizable energy (ME) per day the first 6 days, and 250 kcal ME the last 5 days.

The trial was conducted from the 11th to the 22. of November 2002.

Diets and faeces were analysed by Dansk Pelsdyr Foder A/S, Analyselaboratoriet.

Digestibility of crude protein was based on 5 groups of animals, while the digestibility of amino acids was based on 4 groups of animals.

Results

Chemical composition

The chemical composition of Meat and Bone Meal used is presented in table 2.

Table 2. Chemical composition and apparent digestibilities in Meat and Bone Meal (Mean ? SEM)

	Composition	Digestibility	SEM
Dry Matter, %	97.2		
% of Dry Matter			
Crude Ash	44.1	-	-
Crude Protein (N*6,25)	46.0	69	2.0
Crude Fat	9.6	56	11.6
Amino acids. % of CP			
Alanine	7.67	78	1.0
Arginine	7.15	84	1.1
Aspartic acid	7.39	44	2.0
Cystine	0.70	36	6.9
Glutamic acid	11.65	72	2.0
Glycine	14.48	75	0.7
Histidine	1.97	71	1.7
Isoleucine	2.99	79	1.5
Leucine	5.37	77	1.9
Lysine	4.91	75	1.8
Methionine	1.60	80	1.0
Ornithine	0.09	-	-
Phenylalanine	2.96	77	1.8
Proline	8.78	78	1.0
Serine	3.48	67	2.3
Threonine	3.20	67	2.8
Tryptophan	0.58	62	3.2
Tyrosine	2.06	68	2.4
Valine	3.98	77	1.9

Feed left overs and faeces consistency

There were minor feed left overs in the fecal collection period in all groups. Indicating that 250 Kcal per day exceeded the need for maintenance.

Consistency of faeces was optimal for all animals.

Digestibility

In Meat and Bone Meal the apparent digestibility of crude protein was 69%, while the true digestibility was calculated to 75%. The digestibility of crude fat was 56%, but as fat from Meat and Bone Meal only made up 20% of the dietary fat the determination is uncertain (high SEM).

Apparent digestibility of amino acid is presented in table 2.

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