



FATS AND PROTEINS RESEARCH FOUNDATION, INC.

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AMINO ACID AVAILABILITY IN MEAT AND BONE MEAL

You will recall that Professor E. L. Stephenson at the University of Arkansas, with grant support from FPRF, found that essential amino acids in feather meal and poultry by-product meal are highly available to broilers (Director's Digest No. 64, October 14, 1969). A recent report from Professor Stephenson shows that amino acids from meat and bone meal are also highly available to broilers (Table 1). These data indicate clearly that amino acids in meat and bone meal are more highly available than would be expected from the pepsin digestibility test since this test usually shows about 90-92% digestibility.

Table 1. Availability of Essential Amino Acids
in Meat and Bone Meal (Mean percentage)

<u>Sample:</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
Arginine	98.2	96.5	97.6	97.8	97.2
Cystine	97.2	95.3	97.0	95.8	95.0
Glycine	95.4	94.3	95.7	96.4	95.4
Histidine	97.8	96.7	94.4	97.3	98.6
Isoleucine	97.8	96.2	97.7	97.9	97.4
Leucine	98.1	96.8	98.0	98.1	97.8
Lysine	98.3	96.5	95.7	98.2	97.5
Methionine	98.7	98.1	98.3	98.7	97.8
Phenylalanine	97.4	96.4	97.6	98.1	97.7
Threonine	98.0	96.5	97.4	98.0	97.5
Valine	98.1	96.9	97.7	98.2	97.7