



Amino Acid Profiles

Balancing rations for amino acids has many positive effects on animal production. Using an Amino Acid Profile can allow for higher milk yields, greater component production as well as greater herd profitability through decreased feed costs and improved milk yields.

At CVAS we provide three different options for amino acid analysis. All Amino Acid Profile analyses are completed using AOAC Official Methodology (see below). These options are the CML+9, Full Profile including Tryptophan and a Full Profile without Tryptophan. The CML+9 provides Cysteine, Methionine, Lysine plus 9 additional amino acids. The Full Profile provides all 20 essential and non-essential amino acids plus three non-proteinogenic amino acids (Taurine, Lanthionine and Ornithine). The Full Profile without Tryptophan includes all results from the Full Profile with the exception of Tryptophan. Individual tests are available for Methionine, Lysine and Tryptophan. Please see page 2 for a comparison of what is included in each option.

Methodology:

Package	Methodology
CML + 9	<ul style="list-style-type: none">• AOAC Official Method 994.12• JAOAC 70:171-174, 1987
Full Profile without Tryptophan	<ul style="list-style-type: none">• AOAC Official Method 994.12• JAOAC 70:171-174, 1987• AOAC Official Method 982.30 E(a,b,c), chp. 45.3.05, 2006
Full Profile Including Tryptophan	<ul style="list-style-type: none">• AOAC Official Method 994.12• JAOAC 70:171-174, 1987• AOAC Official Method 982.30 E(a,b,c), chp. 45.3.05, 2006• Alkaline hydrolysis - AOAC Official Method 988.15, chp. 45.4.04, 2006• J. Landry and S. Delhay. 1992. Simplified procedure for the determination of tryptophan of foods and feedstuffs from barytic hydrolysis. J. Agric Food Chem., 40(5):776-779
Nitrogen (Crude Protein)	<ul style="list-style-type: none">• AOAC Official Method 990.03

Pricing:

Domestic pricing for Amino Acid testing is as follows. (These tests must be run in conjunction with a chemistry crude protein, either as a standalone test or as part of a wet chemistry package):

CML+9 - \$100.00

Full Profile including Tryptophan - \$156.75

Full Profile without Tryptophan - \$136.25

Total Lysine - \$88.00

Total Methionine - \$91.75

Tryptophan - \$88.00

Crude Protein - \$7.50



AMINO ACIDS

ANALYSIS RESULTS	CML + 9	Full Profile including Tryptophan	Full Profile without Tryptophan	Available Individually
Results provided as W/W% As Received and W/W% Dry Matter				
Cysteine	X	X	X	
Methionine	X	X	X	X
Lysine	X	X	X	X
Alanine				
Alanine	X	X	X	
Aspartic Acid	X	X	X	
Glutamic Acid	X	X	X	
Glycine	X	X	X	
Isoleucine	X	X	X	
Leucine	X	X	X	
Proline	X	X	X	
Threonine	X	X	X	
Valine	X	X	X	
Arginine				
Arginine		X	X	
Histidine				
Histidine		X	X	
Hydroxylysine				
Hydroxylysine		X	X	
Hydroxyproline				
Hydroxyproline		X	X	
Lanthionine				
Lanthionine		X	X	
Ornithine				
Ornithine		X	X	
Phenylalanine				
Phenylalanine		X	X	
Serine				
Serine		X	X	
Taurine				
Taurine		X	X	
Tyrosine				
Tyrosine		X	X	
Tryptophan				
Tryptophan		X		X