

Calculation PDCAAS (%)



$$= \frac{\text{mg of limiting amino acid in 1 g of test protein}}{\text{mg of same amino acid in 1 g of reference protein}} \times \text{fecal true digestibility (\%)} \times 100$$

FAO/WHO/UNU amino acid scoring pattern mg/g requirement (FAO 2007), Age (yr) 3-10						
Amino Acid		mg/g crude protein			Factor	Contribution
		Requirement	Value in LBG Protein			
Histidine	HIS	16	25		1	16
Isoleucine	ILE	30	32		1	30
Leucine	LEU	61	58		0.951	58
Lysine	LYS	48	53		1	48
Sulphur Amino Acids (MET+CYS)	SAA	23	26		1	23
Aromatic Amino Acids (PHE+TYR)	AAA	41	58		1	41
Threonine	THR	25	32		1	25
Tryptophan	TRP	6.6	9.7		1	6.6
Valine	VAL	40	39		0.975	39
		290.6	332.7			286.6
		Final				0.986
0.986 x 0.70 x 100% = 0.690 = is the PDCAAS						

Typical for
legumes

FAO/WHO/UNU amino acid scoring pattern mg/g requirement (FAO 2007), Age (yr) >18							
Amino Acid		mg/g crude protein			Factor	Contribution	factor/g protein
		Requirement	Value in LBG Protein				
Histidine	HIS	39	25		0.641	25	0.6
Isoleucine	ILE	20	32		1	20	1.6
Leucine	LEU	59	58		1	59	1.0
Lysine	LYS	45	53		1	45	1.2
Sulphur Amino Acids (MET+CYS)	SAA	22	26		1	22	1.2
Aromatic Amino Acids (PHE+TYR)	AAA	38	58		1	38	1.5
Threonine	THR	23	32		1	23	1.4
Tryptophan	TRP	6	9.7		1	6	1.6
Valine	VAL	39	39		1	39	1.0
		291	332.7			277	1.20
		Final				0.952	

The Carob protein **provides 1.2** times the recommendation of mg/g crude protein, based on the lowest value

0.952 x 0.70 x 100% = 0.666 = is the PDCAAS						
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Typical for
legumes

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