

## Composition of Soybean Feed Ingredient Products

		Soybean Meal Solvent	De-hulled Solvent	Expeller	Soybeans Full-fat	Soybean Hulls	Soybean Millrun
<b>Proximate Analyses</b>							
Dry Matter	%	90	88	89	90	91	88
Crude Protein	%	44.0	47.8	42.0	38.0	12.1	13.6
Ether Extract	%	0.5	1.0	3.5	18.0	2.1	1.4
Crude Fiber	%	7.0	3.0	6.5	5.0	40.1	40.7
Ash	%	6.0	6.0	6.0	4.6	5.1	5.1
<b>Ruminant Values</b>							
Ruminant Dig. Protein	%	37.5	46.6	35.5	34.1		
Ruminant TDN	%	78	79	78	85	77	44
<b>Energy Values</b>							
Poultry ME	Kcal/lb	1020	1125	1100	1520		
	Kcal/lb	1405	1425	1360	1610		
<b>Amino acids</b>							
Methionine	%	0.65	0.70	0.6	0.54		
Cystine	%	0.67	0.71	0.62	0.55		
Lysine	%	2.9	3.02	2.7	2.4		
Tryptophan	%	0.60	0.70	0.58	0.52		
Threonine	%	1.7	2.0	1.7	1.69		
Isoleucine	%	2.5	2.6	2.8	2.18		
Histidine	%	1.1	1.3	1.1	1.01		
Valine	%	2.4	2.7	2.2	2.02		
Leucine	%	3.4	3.8	3.8	2.8		
Arginine	%	3.4	3.6	3.2	2.8		
Phenylalanine	%	2.2	2.7	2.1	2.1		
<b>Minerals</b>							
Calcium	%	0.25	0.20	0.20	0.3	0.69	0.42
Total Phosphorus	%	0.60	0.65	0.60	0.60	0.21	0.21
Available Phosphorus	%	0.20	0.21	0.20	0.20		
Sodium	%	0.04	0.04	0.04	0.04		
Potassium	%	1.97	1.90	1.71	1.70	1.27	
Chloride	%	0.02	0.02	0.02	0.03		
Magnesium	%	0.27	0.27	0.25	0.21		
Sulfur	%	0.43	0.43	0.33	0.30		
Manganese	ppm	27.5	27.5	32.2	30.0		
Iron	ppm	120	120	160	75		
Copper	ppm	28	28	18	15		
Zinc	ppm	60	60	59	35		
Selenium	ppm	0.1	0.1	0.1	0.1		

Reference: Feedstuffs, 75(38):16. (September 17, 2003).

Source: Johnson, Dr. Lawrence and Dr. Keith Smith. "Fact Sheet 3-Soybean Processing." *Soybean Meal Information Centre*. <<http://www.soymeal.org>>.