



Nutritional value of invertebrates

An overview of the nutritional content on a dry matter basis of invertebrate species used as food
- completely revised -

Domestic cricket nymph

Acheta domestica

Nutritional content		%
Dry matter (g/kg)	229	22.9
Energy (kJ/g)	17.35	
Protein (g/kg)	672.49	67.25
Fat (g/kg)	144.10	14.41
Calcium (g/kg)	1.20	0.12
Phosphorus (g/kg)	11.00	1.10
Calcium : phosphorus ratio	0.11:1	
(Finke, 2002)		



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Superworm

Zophobas morio

Nutritional content		%
Dry matter (g/kg)	421	42.1
Energy (kJ/g)	24.10	
Protein (g/kg)	467.93	46.79
Fat (g/kg)	420.43	42.04
Calcium (g/kg)	0.42	0.04
Phosphorus (g/kg)	5.63	0.56
Calcium : phosphorus ratio	0.07:1	
(Finke, 2002)		

Domestic cricket adult

Acheta domestica

Nutritional content		%
Dry matter (g/kg)	308.00	30.80
Energy (kJ/g)	19.06	
Protein (g/kg)	665.58	66.56
Fat (g/kg)	220.78	22.08
Calcium (g/kg)	1.32	0.13
Phosphorus (g/kg)	9.58	0.96
Calcium : phosphorus ratio	0.14:1	
(Finke, 2002)		



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Woodlice adult

Porcellio scaber

Nutritional content		%
Dry matter (g/kg)	321.8	32.18
Energy (kJ/g)	-	
Protein (g/kg)	412	41.2
Fat (g/kg)	115	11.5
Calcium (g/kg)	144	14.4
Phosphorus (g/kg)	12.2	1.22
Calcium : phosphorus ratio	11.8:1	
(Oninckx and Dierenfeld, 2012)		

Migratory locusts adult

Locusta migratoria

Nutritional content		%
Dry matter (g/kg)	310	31.0
Energy (kJ/g)	21.3	
Protein (g/kg)	649	64.9
Fat (g/kg)	186	18.6
Calcium (g/kg)	0.77	0.08
Phosphorus (g/kg)	6.25	0.63
Calcium : phosphorus ratio	0.12:1	
(Oninckx and Van der Poel, 2011)		



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Fruit fly pupae

Drosophila melanogaster

Nutritional content		%
Dry matter (g/kg)	324	32.4
Energy (kJ/g)	20.26	
Protein (g/kg)	521	52.1
Fat (g/kg)	105	10.5
Calcium (g/kg)	7.7	0.77
Phosphorus (g/kg)	27.3	2.73
Calcium : phosphorus ratio	0.28:1	
(Bernard and Allen, 1997)		

Mealworm pupae

Tenebrio molitor

Nutritional content		%
Dry matter (g/kg)	390	39.0
Energy (kJ/g)	26.92	
Protein (g/kg)	546	54.6
Fat (g/kg)	308	30.8
Calcium (g/kg)	0.8	0.08
Phosphorus (g/kg)	8.3	0.83
Calcium : phosphorus ratio	0.1:1	
(Bernard and Allen, 1997)		



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Fruit fly adult

Drosophila melanogaster

Nutritional content		%
Dry matter (g/kg)	296	29.6
Energy (kJ/g)	21.44	
Protein (g/kg)	701	70.1
Fat (g/kg)	126	12.6
Calcium (g/kg)	1.0	0.10
Phosphorus (g/kg)	10.5	1.05
Calcium : phosphorus ratio	0.1:1	
(Bernard and Allen, 1997)		

Mealworm larvae

Tenebrio molitor

Nutritional content		%
Dry matter (g/kg)	381	38.1
Energy (kJ/g)	22.59	
Protein (g/kg)	490.81	49.08
Fat (g/kg)	351.71	35.17
Calcium (g/kg)	0.44	0.04
Phosphorus (g/kg)	7.48	0.75
Calcium : phosphorus ratio	0.06:1	
(Finke, 2002)		



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Waxmoth larvae

Galleria mellonella

Nutritional content		%
Dry matter (g/kg)	415.00	41.50
Energy (kJ/g)	27.71	
Protein (g/kg)	339.76	33.98
Fat (g/kg)	600.00	60.00
Calcium (g/kg)	0.59	0.06
Phosphorus (g/kg)	4.70	0.47
Calcium : phosphorus ratio	0.12:1	
(Finke, 2002)		