

Supplementary Table S1 Chemical composition of black soldier fly larvae and prepupae reared on mixed industrial by-products comparing with Gainesville and chicken diet.

Parameters ¹			Experimental Groups						SEM	p-Value
	Gainesville diet	Chicken diet	Coconut endosperm / Soybean curd residue							
			80/20	50/50	20/80	80/20	50/50	20/80		
			Supplementation ²							
			No	No	No	Yes	Yes	Yes		
Chemical composition of larvae										
Dry matter (%FM)	32.2 ^a	35.5 ^b	39.4 ^c	35.5 ^b	33.5 ^{a,b}	34.2 ^{a,b}	34.9 ^b	33.5 ^{a,b}	0.476	<0.001
Ash (%DM)	14.7 ^d	12.9 ^c	3.58 ^a	4.03 ^{a,b}	4.51 ^b	13.1 ^c	14.1 ^d	17.4 ^e	1.087	<0.001
Crude protein (%DM)	48.3 ^e	43.7 ^{c,d}	34.8 ^a	44.7 ^d	49.4 ^e	34.4 ^a	38.5 ^b	42.1 ^c	1.120	<0.001
Ether extract (%DM)	20.7 ^a	26.9 ^{b,c}	49.1 ^e	38.7 ^d	35.1 ^d	34.7 ^d	29.3 ^c	23.1 ^{a,b}	1.842	<0.001
Chemical composition of prepupae										
Dry matter (%FM)	35.7 ^a	37.9 ^{a,b,c}	39.2 ^c	38.5 ^{b,c}	36.2 ^{a,b}	35.8 ^{a,b}	38.2 ^{a,b,c}	38.3 ^{a,b,c}	0.364	0.04
Ash (%DM)	15.8 ^e	12.5 ^c	3.93 ^a	4.28 ^{a,b}	5.00 ^b	15.0 ^d	16.3 ^{e,f}	17.1 ^f	1.137	<0.001
Crude protein (%DM)	48.4 ^e	45.6 ^d	41.7 ^b	47.3 ^e	50.7 ^f	36.9 ^a	40.8 ^b	43.2 ^c	0.893	<0.001
Ether extract (%DM)	24.1 ^a	30.6 ^{b,c}	42.2 ^f	35.8 ^{d,e}	33.4 ^{c,d}	38.7 ^e	31.6 ^c	28.4 ^b	1.167	<0.001

¹ The differences on superscripts in the same row represented the statistical significant difference at $p < 0.05$.

² Each diet contains five grams of supplement comprise monocalcium phosphate, lime stone, DL-methionine, L-lysine, L-threonine, lard and vitamin-mineral premix⁴ at 2.2g, 1g, 0.3g, 0.14g, 0.06g, 1g and 0.3 g, respectively.

³ Vitamin-mineral premix (Feed specialties Co., Ltd; Pathumthani, Thailand) were supplied per kilogram of diets at 2,500,000 IU of vitamin A; 1,000,000 IU of vitamin D3; 7,000 IU of vitamin E; 700 mg of vitamin K; 400 mg of vitamin B1; 800 mg of vitamin B2; 400 mg of vitamin B6; 4 mg of vitamin B12; 30 mg of biotin; 3,111 mg of Ca pantothenate acid; 100 mg of folic acid; 15,000 mg of vitamin C; 5,600 mg of vitamin B3, 10,500 mg of Zn, 10,920 mg of Fe; 9,960 mg of Mn; 3,850 mg of Cu; 137 mg of I; 70 mg of Se.