

**Table S1.** Effects of dietary characteristics on body weight, metabolic body weight and respiratory data of broilers.

Items	Basal diet	Test diets			Mean	SEM	p-value
		ESBM1	ESBM2	ESBM3			
<b>From 14 to 16 day</b>							
Initial BW (g)	417.46	412.79	411.79	429.46	417.88	6.878	0.813
Final BW (g)	607.38	607.96	630.75	620.25	616.58	9.661	0.823
BW <sup>0.70</sup>	626.09	624.15	633.35	636.49	630.02	6.458	0.906
O <sub>2</sub> (L/kg BW <sup>0.70</sup> /d)	56.90	51.75	51.43	51.04	52.78	1.043	0.150
CO <sub>2</sub> (L/kg BW <sup>0.70</sup> /d)	55.96 <sup>a</sup>	50.34 <sup>b</sup>	50.62 <sup>b</sup>	49.97 <sup>b</sup>	51.72	0.857	0.029
<b>From 28 to 30 day</b>							
Initial BW (g)	1410.33	1435.33	1433.25	1396.42	1418.83	12.250	0.653
Final BW (g)	1740.75	1750.58	1775.17	1737.83	1751.08	11.186	0.660
BW <sup>0.70</sup>	1248.99	1246.31	1275.57	1252.49	1255.84	10.096	0.750
O <sub>2</sub> (L/kg BW <sup>0.70</sup> /d)	48.09	48.24	47.82	46.86	47.75	0.746	0.926
CO <sub>2</sub> (L/kg BW <sup>0.70</sup> /d)	48.02	46.76	46.73	46.84	47.09	0.582	0.855

BW<sup>0.70</sup> calculated as average of initial and final body weight. Data of O<sub>2</sub> and CO<sub>2</sub>

is automatically recorded at 3-min interval by chambers and calculated as daily.

<sup>a-b</sup> Means within rows with different superscripts are significantly different (*p* < 0.05).