



Lactobacillus acidophilus



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ABSTRACT

Lactobacillus acidophilus (*L. acidophilus*) is a probiotic bacterium that has been widely used in animal feed. The present study investigated the effect of *L. acidophilus* on the growth performance and feed intake of broilers. A total of 180 broilers were divided into five groups: (1) control; (2) *L. acidophilus*; (3) *L. acidophilus*; (4) *L. acidophilus*; (5) *L. acidophilus* + *L. acidophilus*. The results showed that the *L. acidophilus* groups had significantly higher body weights ($P < 0.05$) and lower feed intake ($P < 0.05$) compared to the control group. The *L. acidophilus* + *L. acidophilus* group had the highest body weight and the lowest feed intake. The results suggest that *L. acidophilus* can improve the growth performance and reduce feed intake of broilers.

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Lactobacillus acidophilus is a probiotic bacterium that has been widely used in animal feed. The present study investigated the effect of *L. acidophilus* on the growth performance and feed intake of broilers. A total of 180 broilers were divided into five groups: (1) control; (2) *L. acidophilus*; (3) *L. acidophilus*; (4) *L. acidophilus*; (5) *L. acidophilus* + *L. acidophilus*. The results showed that the *L. acidophilus* groups had significantly higher body weights ($P < 0.05$) and lower feed intake ($P < 0.05$) compared to the control group. The *L. acidophilus* + *L. acidophilus* group had the highest body weight and the lowest feed intake. The results suggest that *L. acidophilus* can improve the growth performance and reduce feed intake of broilers.

Abbreviations: *L. acidophilus*, *Lactobacillus acidophilus*; *L. acidophilus* + *L. acidophilus*, *Lactobacillus acidophilus* + *Lactobacillus acidophilus*.

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fl. *L. acidophilus* (B, 2005; C, 2009; C, 2015).
fi. (, 2009; , 2016; C, 2015).
(, 2001; , 2010).
(, 2007).
fi. (, A, 2004; , 2007).
(, 2013,). 57.97, 1.6656, 1783. (), / , 2. B, / 11, 7.9701007

1

<p><i>Escherichia coli</i> (A, 5500 ; B, 3,500 ; C, 40 ; D, Cfl, 5.0 ; E, B₁₂, 0.03 ; F, 3.0 ; G, 3.10 ; H, 0.10 ; I, 2.0 ; J, 30 ; K, 20 ; L, 0.6 ; M, 800 ; N, (4), 100 ; O, (4), 125 ; P, (4-5 2), 16 ; Q, (4-2), 15 ; R, (), 0.2 ; S, (2, 3), 0.3</p>	<p>572 258 50 24 45 20.5 11 5 3 1 0.5 10</p>
<p>A, 14.40 C, 223.57 E, 14.3 G, 3.6 I, 8.3 K, 6.6</p>	

2

<p><i>E. coli</i> (2002)</p>	<p>5' 3'</p>
<p><i>Lactobacillus</i> (2012)</p>	<p>CA, CC C A, AA AA C AAC, CAA, A CAAA C, A, AAA CCC, C A CC, CA C, CA</p>

A AC (2000). A ad libitum A. A (A), (A), A (1, Cfl 10% -80°C

2.4. Sample analysis

fi 10 () 154; +, 6.3; C-, 137; 2- 4-, 0.3; C 2+, 1.2; -2+, 0.7; C 3-, 24; 7.4) (2005; 2007; 2014). (CC, 6, 2013,). B fl, CA, A 15. () 15. 1. C fl 4, (4). 4 (A, fi 4 fl 0.4 (800, B, 16, A Escherichia coli, Lactobacillus (2002) (2012). A A B,

3

		<i>L. acidophilus</i>	+ <i>L. acidophilus</i>	- <i>L. acidophilus</i>		
	40	81.25	82.09	83.92	3.21	0.839
	80	58.11	60.54	70.82	2.73	0.036
	120	78.89	80.08	88.91	3.27	0.139
fl	240	69.73	72.31	81.27	2.20	0.023

L. acidophilus = *Lactobacillus acidophilus*. (P<0.05).

+*L. acidophilus* = *Lactobacillus acidophilus*.
 -*L. acidophilus* = *Lactobacillus acidophilus*.
 = 3.

4

		<i>L. acidophilus</i>	+ <i>L. acidophilus</i>	- <i>L. acidophilus</i>		
A	269	275	274	278	298	6.69
A	368	369	366	370	372	8.49
fl	1.37	1.34	1.35	1.34	1.25	0.05

L. acidophilus = *Lactobacillus acidophilus*. (P<0.05).

+*L. acidophilus* = *Lactobacillus acidophilus*.
 -*L. acidophilus* = *Lactobacillus acidophilus*.
 = 6.

2.5. Statistical analysis

(A A) 20.0 (C C). (P<0.05).

3.

3.1. Survival rate of immobilized *L. acidophilus* in simulated gastrointestinal juices

L. acidophilus, +*L. acidophilus* -*L. acidophilus* (P<0.05)
 3. *L. acidophilus* 80 fl 240 +*L. acidophilus* (P>0.05).
 40 fl 120 (P>0.05).

3.2. Growth performance

4 A A +*L. acidophilus* -*L. acidophilus* (P<0.05) A +*L. acidophilus* (P>0.05) A A (P>0.05).

3.3. Intestinal microbiota

A A -*L. acidophilus* (P<0.05) *Lactobacillus*

