



Comparative effect of Butirex-C4 on intestinal parameters in growing pigs

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Butirex C4 is the butyric source manufactured under a sodium buffer protection, in order to avoid the stomach dissociation and the loss of activity. Then, contribute to a fast release in the upper part of intestine (duodenum and jejunum).

The objective was studied performance and intestinal parameters of fattening pigs fed with different sources of butyrate, during 4 weeks in a standard fattening feed

Method and Material

➤ 4 Treatments:

- | | |
|------------|------------------|
| 1. Control | 3. Butirex C4 |
| 2. Ca-But | 4. Coated Na-but |

➤ Inclusion level of each product → 1,5 Kg/ton. Different concentrations

Product tested at 1.5 Kg/Mt	Inclusion of pure butyrate Mt.	Protection:
Ca-but 95%	1425 ppm	Not protection
Butirex C4 (54%)	810 ppm	Buffer protection
Coated Na-but (30%)	450 ppm	Stearin fat protection

- 4 replicates per treatment
- Performance during 4 weeks

Results

Performance results: Pigs fed with BUTIREX C4 grew and converted the feed better than the other treatments

	Initial BW, Kg	Final BW, Kg	DWG, g	DFI, g	FCR
Control	39.5	61.5	786 x	2,339	2.98 xy
Ca-But	38.3	59.3	750 xy	2,152	2.89 xy
Butirex C4	40.5	63.8	830 x	2,321	2.81 x
Na-but Coated	39.3	57.5	652 y	2,129	3.30 y

DWG: Daily weight gain; DFI: Daily feed intake; FC: Feed conversion (feed/growth)

Intestinal parameters:

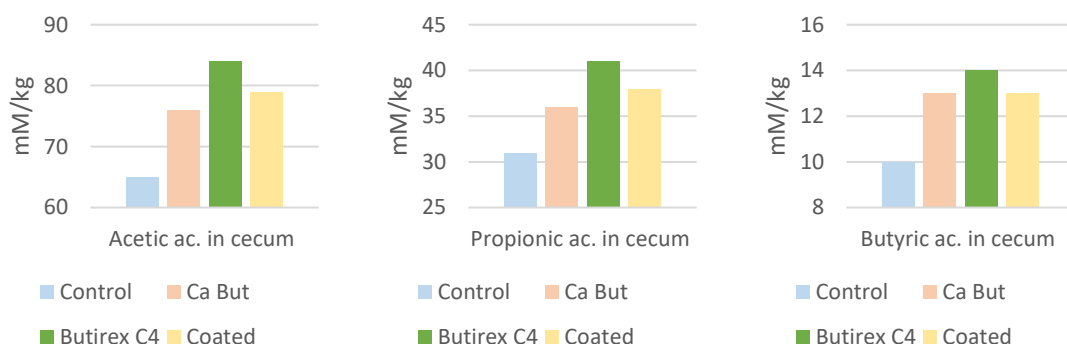
- Pigs fed with BUTIREX C4 had similar gastrointestinal tract pH

	Control	Ca But	Butirex C4	Coated
Stomach pH	3,4	3,25	3,25	3,45
Jejune pH	5,95	5,8	5,7	5,8
Ileum pH	6,3	6,25	6,3	6,4

- Pigs fed with BUTIREX C4 had high concentration of VFA in ileum and cecum

	Control	Ca But	Butirex C4	Coated
Lactic ac. in ileum (mM/Kg) (*)	22 y	31 xy	38 x	39 x
Acetic ac. in cecum (mM/Kg) (**)	65 b	76 a	84 a	79 a
Propionic ac. in cecum (mM/Kg) (**)	31 b	36 b	41 a	38 ab
Butyric ac. in cecum (mM/Kg)	10	13	14	13
VFA cecum (mM/Kg) (**)	108 y	125 x	142 x	132 x

(*) P < 0,1 (**); P < 0,05



- Pigs fed with BUTIREX C4 had great concentration of lactobacillus in the ileum

	Control	Ca But	Butirex C4	Coated
Lactobacillus ileum (UFC/g) (**)	2,5 10 ⁸ b	2,2 10 ⁹ ab	2.65 10⁹ a	4 10 ⁹ a

(*) P < 0,1 (**); P < 0,05

Conclusions:

Butirex C4, with its sodium buffer protection and high concentration of sodium butyrate, improves productive performance and intestinal parameters of fattening pigs fed with different sources of butyrate, during 4 weeks in a standard fattening feed.

Do you want to know more?



butirexC4.net