



Effect of fermented liquid feed on feed efficiency, gut health and immunity of Large White Yorkshire (LWY) fatter pigs

R BURAGOHAIN^{1✉} and B N SAIKIA²

Central Agricultural University (Imphal), Selesih, Aizawl, Mizoram 796 015 India

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Supplementary Table 1. Composition of the standard rations (NRC, 2012)

Ingredients	SR I (11-25 kg)	SR II (25-50 kg)	SR III (50-75 kg)	SR IV (75-100 kg)
Yellow maize	52.45	59.06	62	66
Wheat bran	0	0	6	8
Soya bean meal	27	21	15	11
De-oiled ground nut cake	8	8	7	5.6
Fish meal	5	5	4	3
L-Lysine	0.5	0.4	0.3	0.3
DL-Methionine	0.05	0.04	-	-
Vegetable oil	4	3.5	3.2	3.6
Common salt	0.5	0.5	0.5	0.5
Commercial mineral mixture	2.5	2.5	2.0	2.0

The figures within parenthesis indicate the body weight of the pigs.

Supplementary Table 2. Nutritional composition of standard rations

Nutrient	SR I (11-25 kg)	SR II (25-50 kg)	SR III (50-75 kg)	SR IV (75-100 kg)
Dry matter (%)	89.98	89.23	89.55	89.34
Crude protein (%)	22.52	19.49	17.26	15.22
Ether extract (%)	4.84	3.28	3.25	4.67
Crude fibre (%)	3.42	4.02	4.11	4.53
Total ash (%)	9.15	8.81	9.49	8.37
Nitrogen free extract (%)	60.07	64.40	65.89	67.21
Organic matter (%)	90.85	91.19	90.51	91.63
Acid insoluble ash (%)	0.98	0.85	1.36	1.22
Neutral detergent fibre (%)	14.86	15.40	19.36	23.04
Acid detergent fibre (%)	4.87	3.45	4.99	4.97
Hemi-cellulose (%)	9.99	11.95	14.37	18.06
Calcium (%)	3.34	3.12	2.96	2.97
Total phosphorous (%)	0.87	0.75	0.60	0.79
Energy (Kcal ME/kg) *	3332.28	3315.93	3266.00	3272.88
Lysine (%) *	1.37	1.16	0.93	0.81
Methionine (%) *	0.48	0.45	0.37	0.34

*Calculated values.

Supplementary Table 3. VH (μm), CD (μm) and AVSA (μm^2) in LWY growing pigs fed FLF

Area	Parameter	T ₁	T ₂	T ₃	T ₄	SEM/p-value
Duodenum	VH (μm)	350.00 ^a ±28.86	450.00 ^{ab} ±28.86	483.33 ^b ±60.09	550.00 ^b ±28.86	27.41/0.04*
	CD (μm)	356.67 ^a ±23.33	470.00 ^b ±35.11	516.67 ^{bc} ±16.67	566.67 ^c ±33.33	26.32/<0.01**
	AVSA (μm^2)	31.50 ^a ±3.01	35.67 ^{ab} ±5.48	58.50 ^{bc} ±9.76	64.50 ^c ±10.85	5.45/0.04*
Jejunum	VH (μm)	316.67 ^a ±16.67	350.00 ^a ±28.87	450.00 ^b ±28.87	383.33 ^{ab} ±16.67	17.94/0.02*
	CD (μm)	350.00±28.87	356.67±23.33	366.67±16.67	400.00±28.87	12.12/0.53
	AVSA (mm^2)	28.17 ^a ±7.07	30.50 ^a ±1.80	77.08 ^c ±7.98	34.42 ^a ±0.82	6.48/<0.01**
Ileum	VH (μm)	250.00 ^a ±28.86	316.67 ^b ±16.67	383.33 ^b ±16.67	366.67 ^b ±33.33	18.92/0.02*
	CD (μm)	266.67 ^a ±16.67	366.67 ^{ab} ±33.33	483.33 ^b ±60.09	433.33 ^b ±33.33	29.59/0.02*
	AVSA (mm^2)	20.67 ^a ±1.83	43.50 ^b ±6.87	47.25 ^b ±5.37	47.67 ^b ±7.36	4.16/0.03*

Means bearing different superscripts (a, b, c) in a row differ significantly (*P<0.05, **P<0.01)

Supplementary Table 4. Measurement of skin-fold thickness (mm) as measure of CMI in experimental pigs

Time	T ₁	T ₂	T ₃	T ₄	SEM/p-Value
0 h	0.00	0.00	0.00	0.00	-
6 h	1.364 ^a ±0.52	1.070 ^a ±0.16	2.987 ^b ±0.11	2.963 ^b ±0.17	0.28/<0.01**
12 h	2.434 ^a ±0.56	1.919 ^a ±0.05	4.006 ^b ±0.02	3.997 ^b ±0.13	0.29/<0.01**
24 h	3.889 ^a ±0.20	2.733 ^a ±0.19	5.529 ^b ±0.47	6.333 ^b ±0.87	0.44/<0.01**
48 h	2.034 ^a ±0.08	1.699 ^a ±0.24	6.928 ^b ±0.06	5.842 ^b ±0.94	0.70/<0.01**
72 h	0.982 ^a ±0.08	0.707 ^a ±0.23	5.871 ^b ±0.57	4.447 ^b ±1.38	0.69/<0.01**

Means bearing different superscripts (a, b) in a row differ significantly (*P<0.05, **P<0.01).

Supplementary Table 5. Humoral immune response (HA, log₁₀/ml) of the experimental pigs

Time	T ₁	T ₂	T ₃	T ₄	SEM/p-value
Initial	2.803±0.17	2.803±0.17	3.104±0.17	3.103±0.17	0.06/0.10
7 th day	2.903±0.30	2.903±0.00	3.304±0.17	3.304±0.17	0.08/0.05
21 st day	2.803 ^a ±0.35	2.903 ^{ab} ±0.30	3.404 ^b ±0.17	3.405 ^b ±0.17	0.11/0.04*

Means bearing different superscripts (a, b) in a row differ significantly (*P<0.05, **P<0.01)