

Fysal liquid is effective reducing *Enterobacteriaceae* recontamination

Conclusion

The results show that Fysal liquid:

- Reduces *Enterobacteriaceae* counts in protein meal
- A dosage of 0.6 % Fysal liquid is sufficient for an acceptable reduction speed even when a recontamination occurs

Fysal® liquid is a synergistic blend of the most potent organic acids including their salts. It effectively reduces *Salmonella* in both raw materials and compound feeds and has a long-lasting effect. The use of Fysal liquid results in safe feed materials for the animals and an optimal *Salmonella* control throughout the complete food chain.

Objective

The objective of this trial was to demonstrate the reduction of *Enterobacteriaceae* of different dosages in corn gluten meal.

Experimental design

For this trial corn gluten meal from a commercial company was used. The corn gluten meal was treated with the different dosages of Fysal liquid (table 1). Fysal liquid was diluted 5 times before use to ensure good spreading of the product. The samples were kept on room temperature and the *Enterobacteriaceae* load was measured. Afterwards, a recontamination was done by mixing 5% contaminated corn gluten meal in to the samples. The contamination level was 3000,000 cfu/g. The samples were kept on room temperature and the *Enterobacteriaceae* load was measured 5 and 24 hours after recontamination.

Results

The control feed shows a clear bacterial contamination that hardly declines over time. The treated samples however all have a decrease in bacterial load directly after treatment.

The dosage of 4 kg/t showed the fastest and highest reduction (table 2).

Table 1: Different treatments of the meal samples.

treatments	Added Dosage of Fysal liquid (kg/t)
Control	-
Fysal liquid 1	1
Fysal liquid 2	2
Fysal liquid 3	3
Fysal liquid 4	4

Table 2: *Enterobacteriaceae* counts in corn gluten meal after contamination of treated samples with Fysal liquid.

		<i>Enterobacteriaceae</i> (cfu/g)		
After treatment		After recontamination		
Treatments	0 hours	5 hours	24 hours	
Control	0	1500	220	
Fysal liquid 1	0	750	90	
Fysal liquid 2	0	800	60	
Fysal liquid 3	0	750	60	
Fysal liquid 4	0	600	<10	



Trial summary

Product: Fysal® liquid

Country: The Netherlands

Type of feed: Corn gluten meal

Application point: N.A.

Fysal inclusion rate: 5 kg/t

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