

Orgacids®

antibacterial acidifier

Orgacids as Feed Sanitizer at Feedmill and Farm Level

SET-UP

Location

A commercial layer farm in Central region with own feed mill.

Farm Details

Bird population around 400,000 birds, closed house.

Animals

Multi-layer cage system.

Duration

One month.



TREATMENTS

Orgacids is an acid blends with total acids of 36% and consisted of 6 types of acids as feed acidifier and sanitizer.

Pre-treatment group

Commercial diet

Treatment group

Commercial diet + 2kg Orgacids

MEASURED PARAMETER

- pH of feed at feed mill and farm level.
- Presence of *Salmonella* sp. in feed (feed mill and farm) and farm environment.

RESULTS

A. Feed Sanitization at Feed mill Level

	Pre-treatment		Day 1 Post treatment		Day 14 Post treatment		Day 28 Post-treatment	
	pH	Salmonella	pH	Salmonella	pH	Salmonella	pH	Salmonella
Feedmill mixer	5.80	1/1*	5.75	0/3	6.06	0/3	5.96	0/3
Feed Silo	5.80	1/1*	5.70	0/1	6.10	0/1	6.00	0/1
Lorry	5.90	0/1	5.80	0/1	5.90	0/1	6.10	0/1

**Salmonella* spp. was isolated from the feed sample.



B. Feed Sanitization at Farm Level

i. Maintain Feed pH at Acidic Level

		Pre-treatment	Day 1 Post-treatment	Day 14 Post-treatment	Day 28 Post-treatment
Layer house 1	Feed silo	5.8	5.9	5.9	5.9
	Feed through	5.78	5.68	5.91	5.83
Layer house 2	Feed silo	6.1	5.9	6	5.9
	Feed through	5.75	5.65	5.88	5.83
Layer house 3	Feed silo	5.8	5.9	5.7	5.9
	Feed through	5.73	5.65	5.8	5.91

ii. Control *Salmonella* sp. in Feed and Environment at Farm Level

		Pre-treatment		Day 1 Post-treatment		Day 14 Post-treatment		Day 28 Post-treatment	
		F	E	F	E	F	E	F	E
Layer house 1	Feed silo	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
	Feed trough	0/6	4/6 ¹	0/6	0/6	0/6	0/6	0/6	0/6
Layer house 2	Feed silo	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
	Feed trough	3/6 ²	0/6	0/6	0/6	0/6	0/6	0/6	0/6
Layer house 3	Feed silo	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
	Feed trough	2/6 ³	0/6	0/6	1/6 ⁴	0/6	0/6	2/6 ⁵	0/6

F: Feed; E: Environment

¹ *Salmonella* spp. isolated, sensitive to amoxicillin, colistin sulphate, enrofloxacin, florfenicol, Fosfomycin, and norfloxacin.

^{2,3,4} *Salmonella pullorum* isolated, sensitive to colistin sulphate, enrofloxacin, flumequine, fosfomycin, and norfloxacin.

⁵ *Salmonella pullorum* isolated, sensitive to amoxicillin, colistin sulphate, enrofloxacin, florfenicol, and norfloxacin. Possible cross-contamination from the environment. The feed was reported to be *Salmonella* negative on Day 35.

Orgacids able to perform residue feed sanitization effect at farm level by maintaining the acidic pH value in the feed. Therefore, *Salmonella* contamination both in feed and feed through can be controlled.

CONCLUSION

Orgacids at 0.2% inclusion rate in feed is able to perform feed sanitation by:

- ✓ Maintain acidic pH in feed at feed mill and farm level.
- ✓ Control *Salmonella* sp. contamination in feed and residue activity in the farm environment.

