



Definite Diarrhoea Domination



Prevention & Control : the Green domination

Neonatal & Post-weaning Diarrhea (PWD) in Pigs

Occurrence: Worldwide.

Age affected: Weaners.

Causes: Enterotoxigenic *E.coli* strains, : dietary problems; stress;

Present in pig
intestine

Proliferation of
enterotoxigenic *E.Coli*
(ETEC)

Sudden change
in diet

New environment,
mixing with different
farms



Other causes: *Campylobacter* or *Salmonella*, mismanagement

Wet Litter problem (Broiler / Layer)

- Breast Blister
- Dirty Eggs
- Dirty vent in broiler, pododermatitis
- Ammonia production



Disrupt them with..

STODI[®]

Definite Diarrhea Domination



Standardised
Botanical
Powders

From



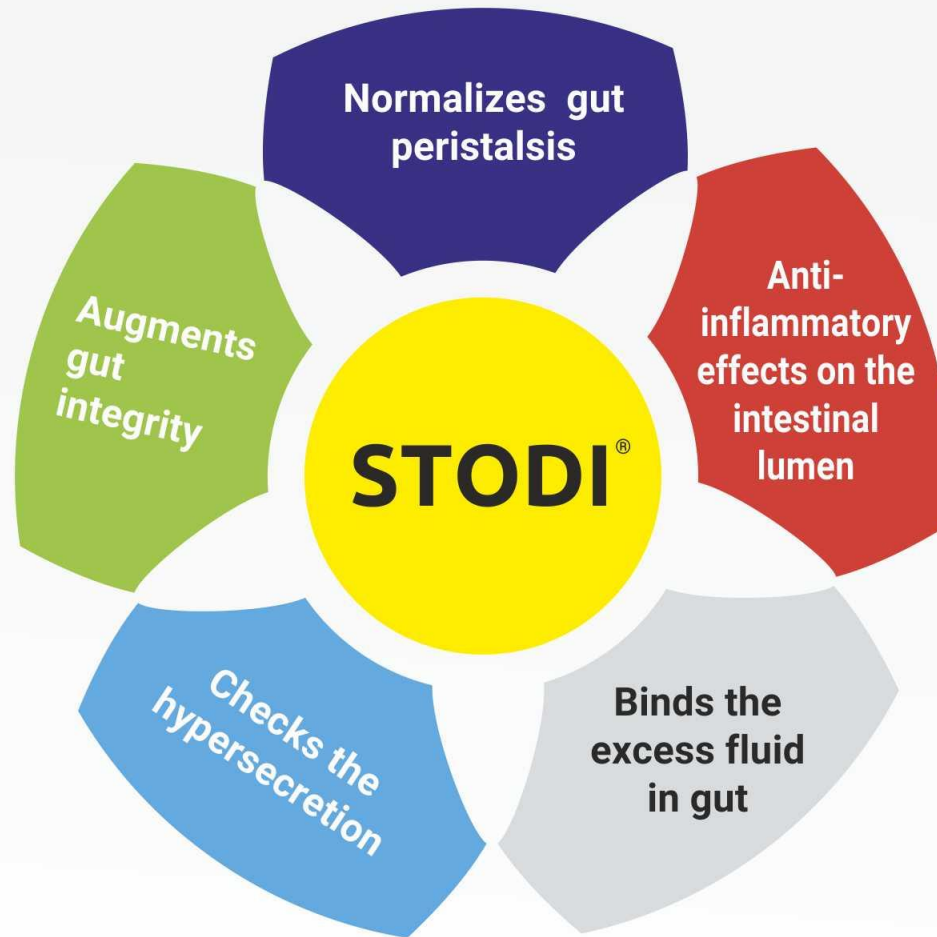
Selected Herbs

With
Phytochemicals
like

- Andrographolide
- Punicalagins
- Other Ellagitannins
- Polyphenols



Mechanism of Action





1. Augmenting Gut Integrity

Gut Shield, Gut Immunity, Block Bacterial
Adhesion & Prebiotic Effect

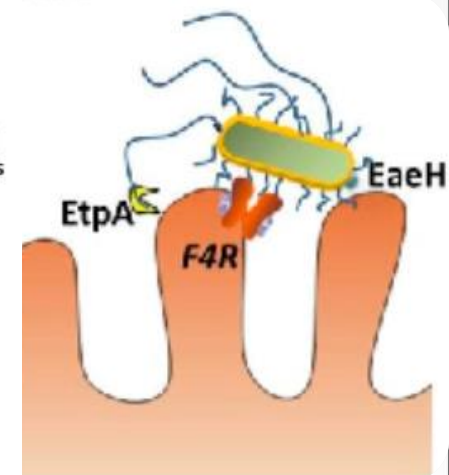
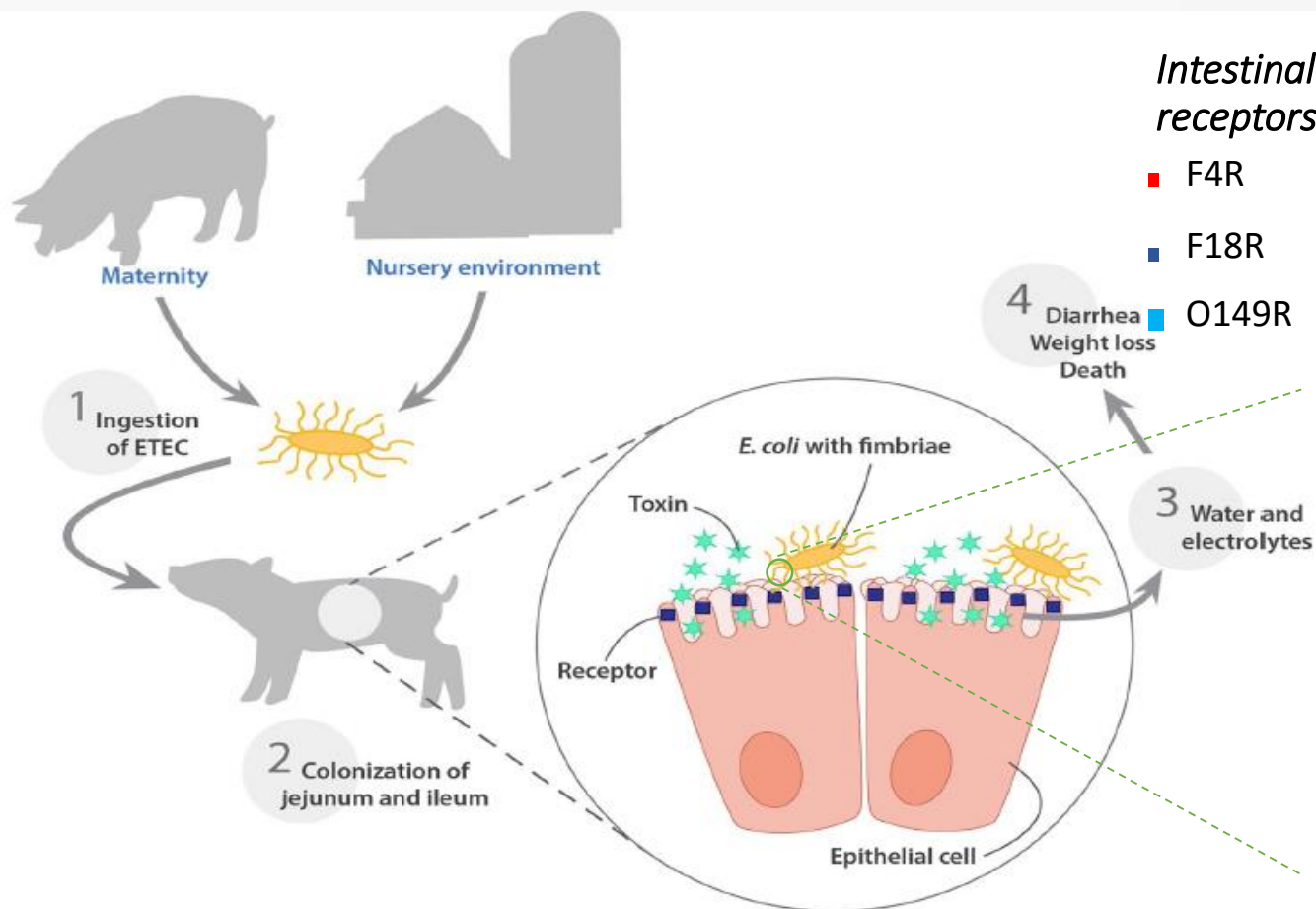


Augments
gut
integrity

STODI®

Stodi® blocks the receptors on villi by its shielding action, hence prevents adhesion & colonisation of bacteria

Pathogenesis of Infectious Diarrhoea



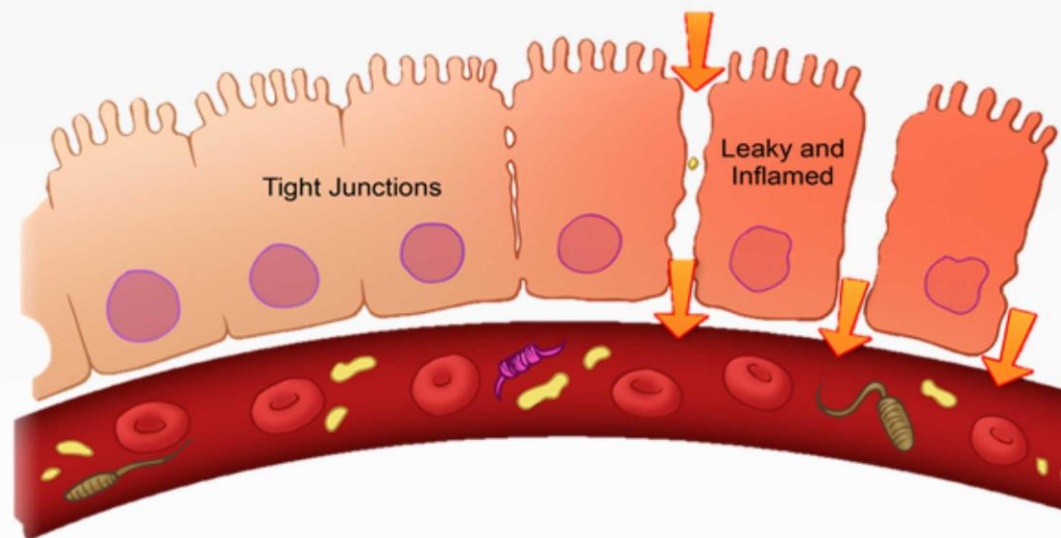
Augments
gut
integrity

STODI®

Augments Gut Integrity



STODI®
also helps in
augmenting
tight
junctions

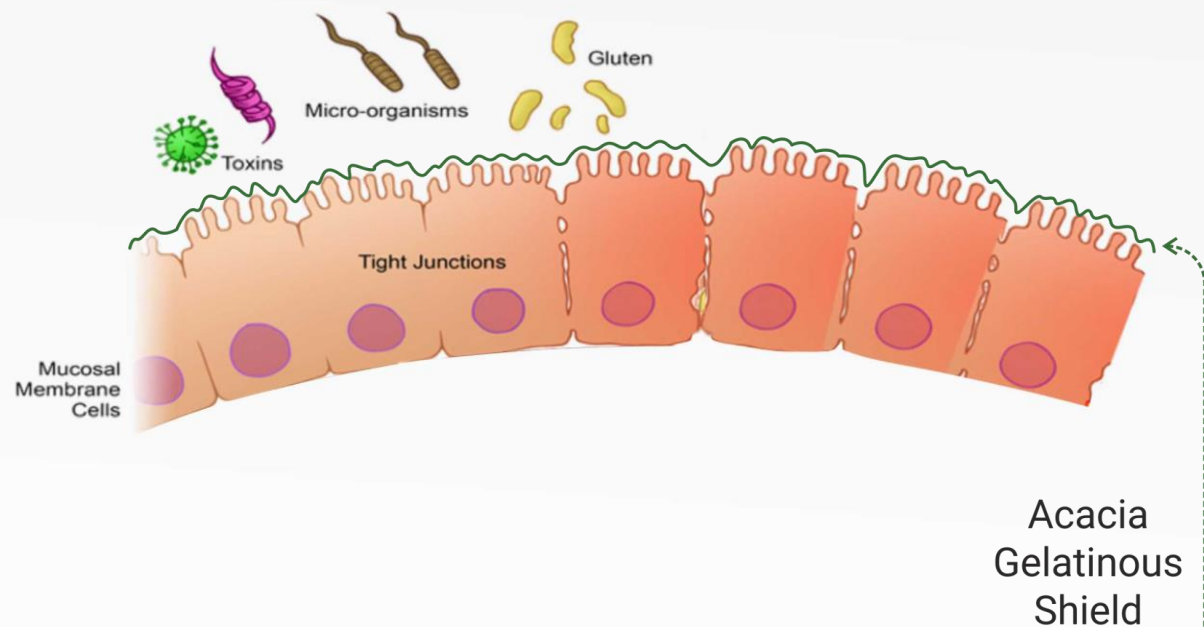


Augments
gut
integrity

STODI®

STODI®
helps in
creating
a protective
layer over
intestinal
mucosa

Gut Shield Effect

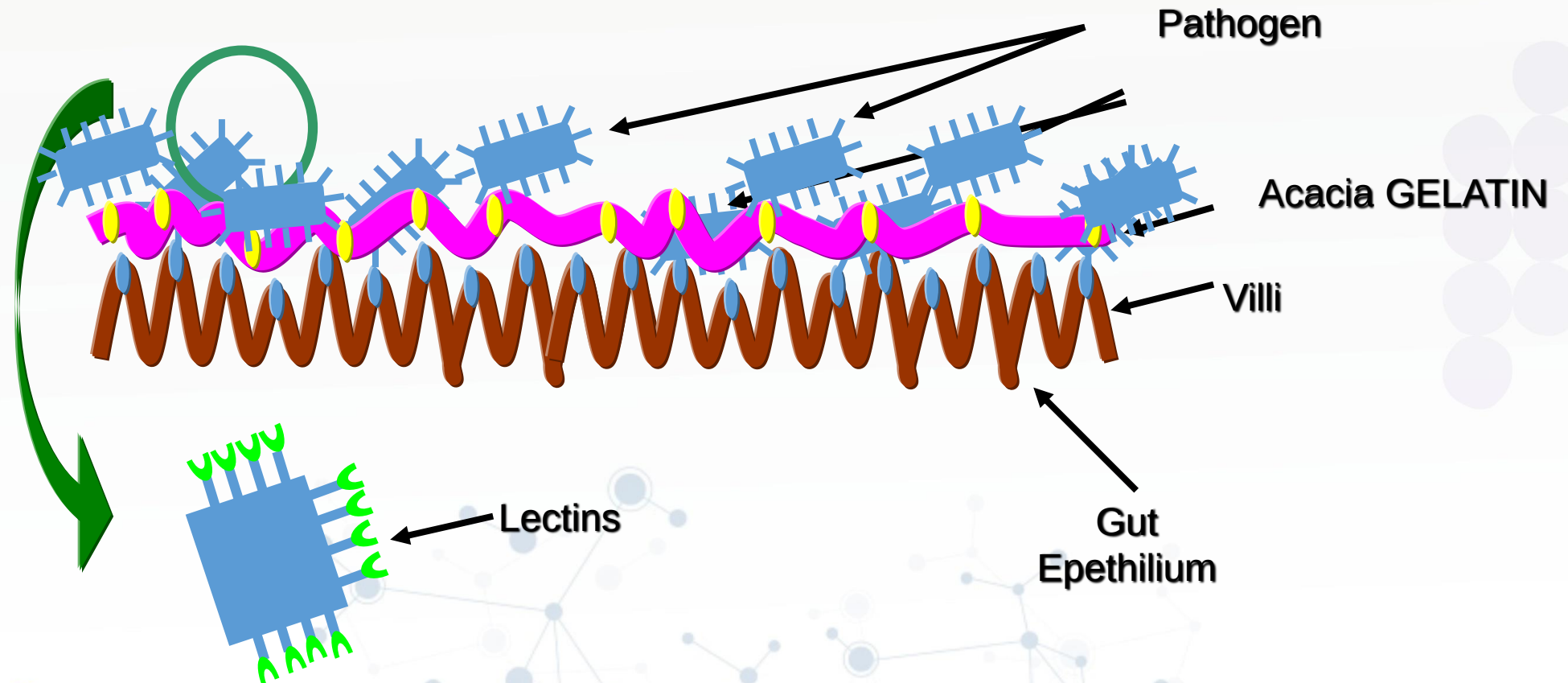


natural
REMEDIES



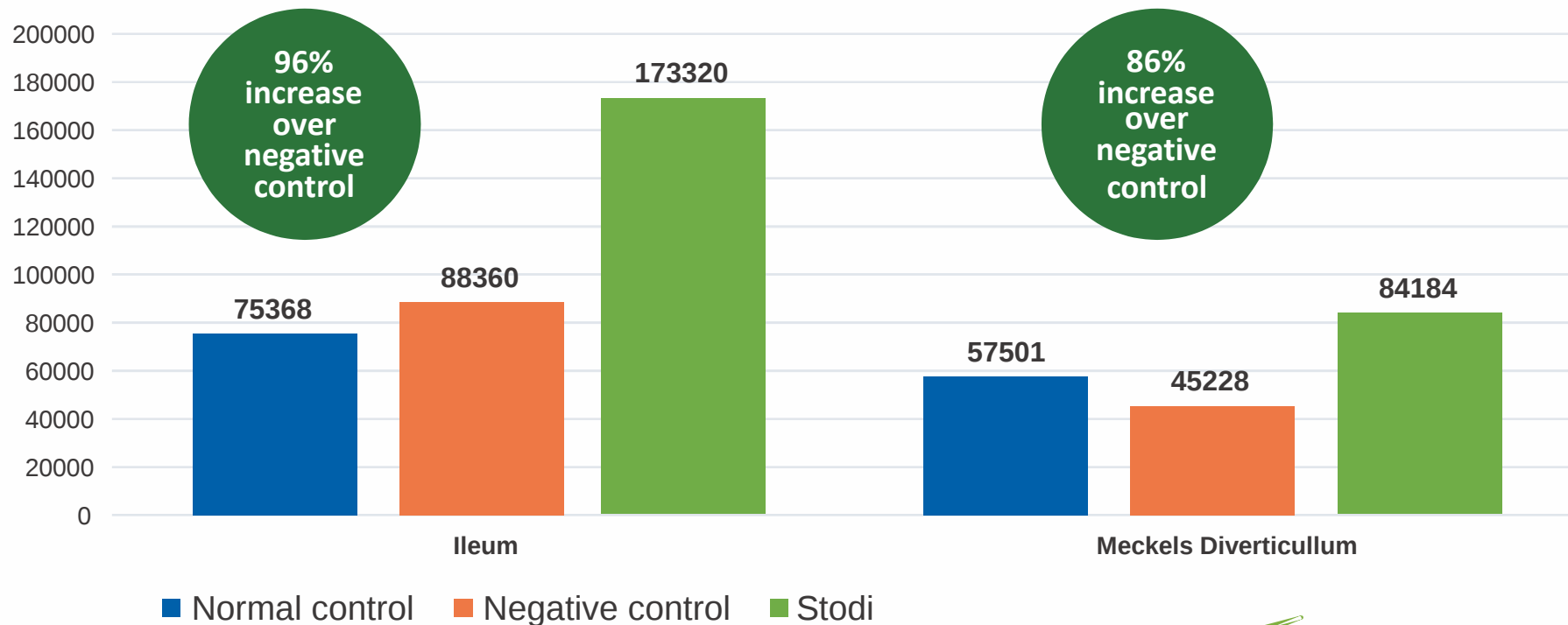
Gut Shield Effect

Acacia
GELATIN
Prevents
intestinal
colonization
of
pathogens



Stodi Improves Gut immunity

STODI increases the surface area of GALT(μm)



Did you know ?

The GALT makes up of 70% of total body immune cells!

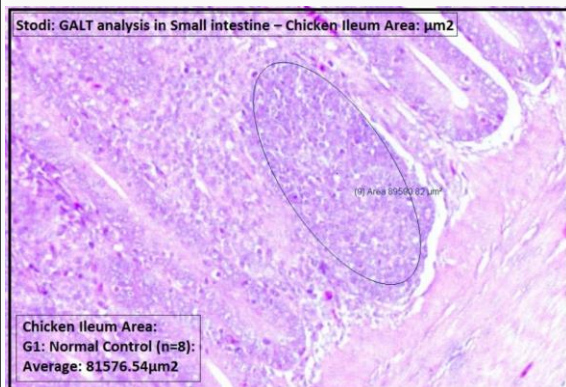
NR/AHS/PLT/02/2018/RP



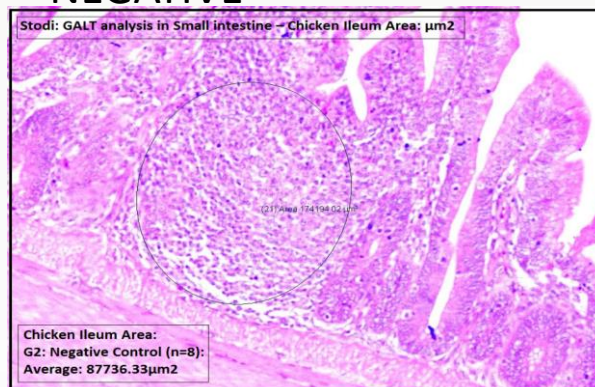
Stodi Improves Gut immunity

SMALL INTESTINE

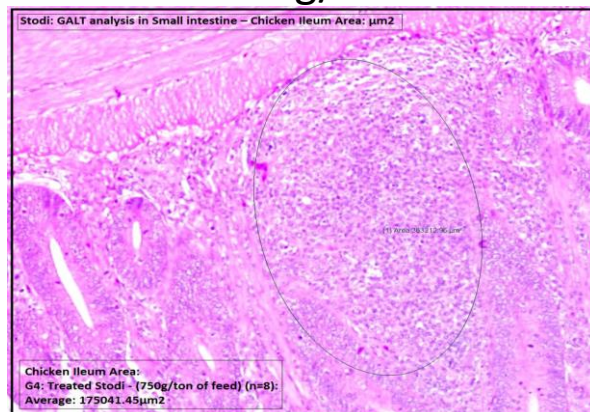
NORMAL



NEGATIVE

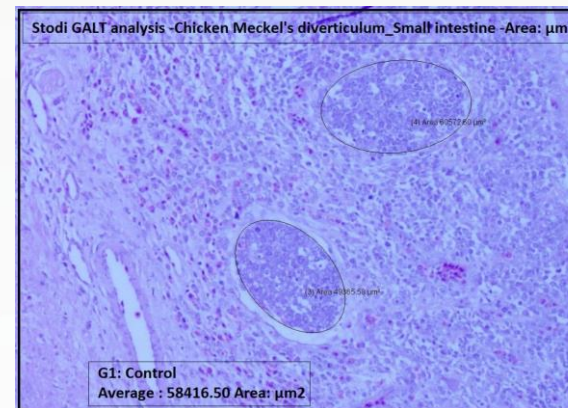


STODI-750g/TON

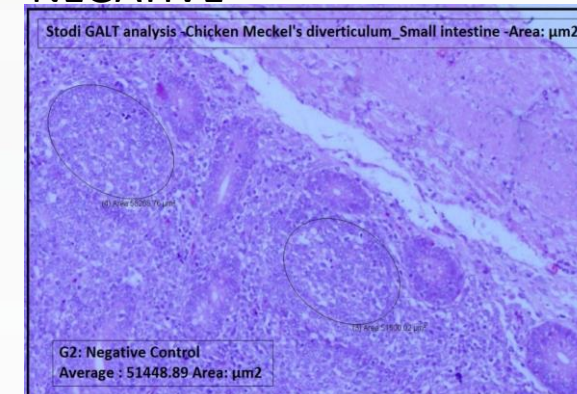


MECKEL'S DIVERTICULUM

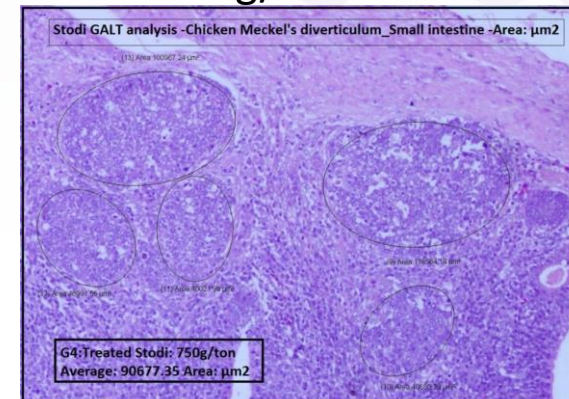
NORMAL



NEGATIVE



STODI-750g/TON

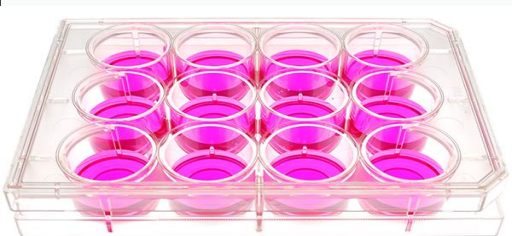


An increase in the surface area of the GALT is noticed in the ileum in STODI 750g/ton as compared to normal and negative control

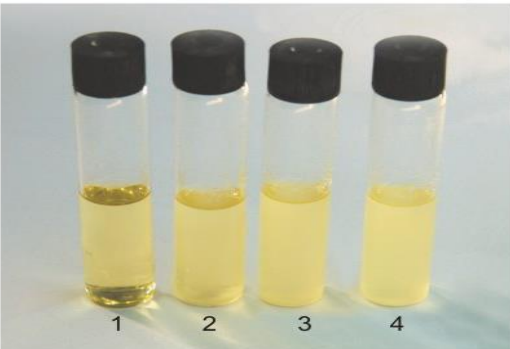


Stodi Blocks Bacterial Adhesion

Control Group		Stodi Group	
4 Hour	8 Hour	4 Hour	8 Hour
12 Hour	16 Hour	12 Hour	16 Hour



Caco-2: Human colon adenocarcinoma cell line



Reinforced Clostridial Broth (M443)

No of microscopic fields	No. of <i>C. perfringens</i> adhered per field							
	Control				Stodi Group			
	4hr	8hr	12hr	16hr	4hr	8hr	12hr	16hr
1	31	36	25	28	16	9	4	3
2	33	24	30	32	12	7	2	2
3	24	41	36	35	13	3	5	0
4	29	28	15	34	14	7	6	1
5	30	23	26	21	4	9	3	5
6	25	29	32	24	13	10	8	2
7	14	25	29	22	13	6	2	1
8	14	18	25	25	12	10	4	3
9	22	10	37	31	10	5	3	2
10	28	26	25	18	13	4	3	1
Average	25	26	28	27	12	7	4	2
SD	6.68	8.64	6.38	5.87	3.20	2.49	1.89	1.41
% Inhibition	0	0	0	0	52.00	73.08	85.71	92.59



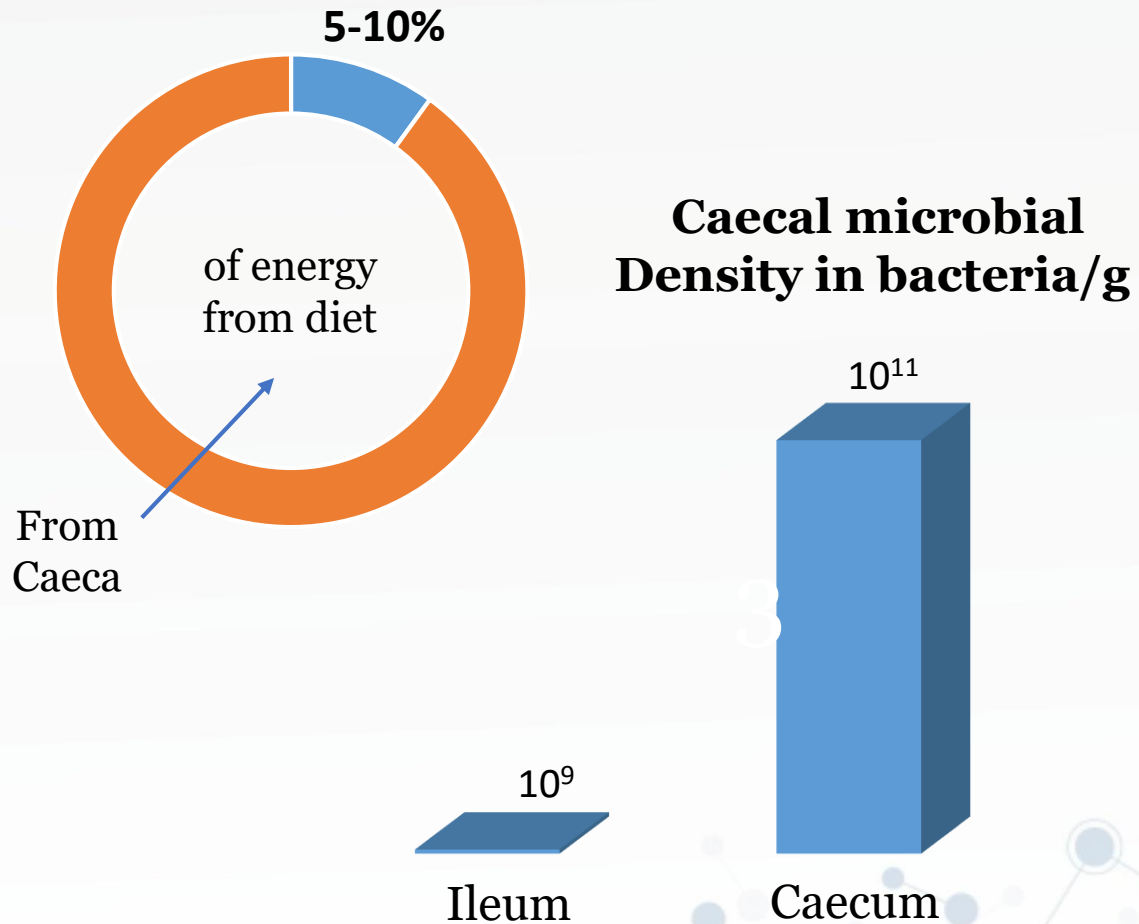
Metagenomics – Gut Microflora



- **Metagenomics (“Meta”- beyond oneself)** is the study of the **metagenome**—the collective genome of microorganisms from a particular environment . Example : Gut environment
- **Genomics:** study of the genome of a particular organism. Example : Man or Chicken



Caecum – The Blind Gut



Undigested Nutrients reach caeca

Undergo microbial fermentation

Releases energy precursors like VFA

Better utilisation of energy from diet



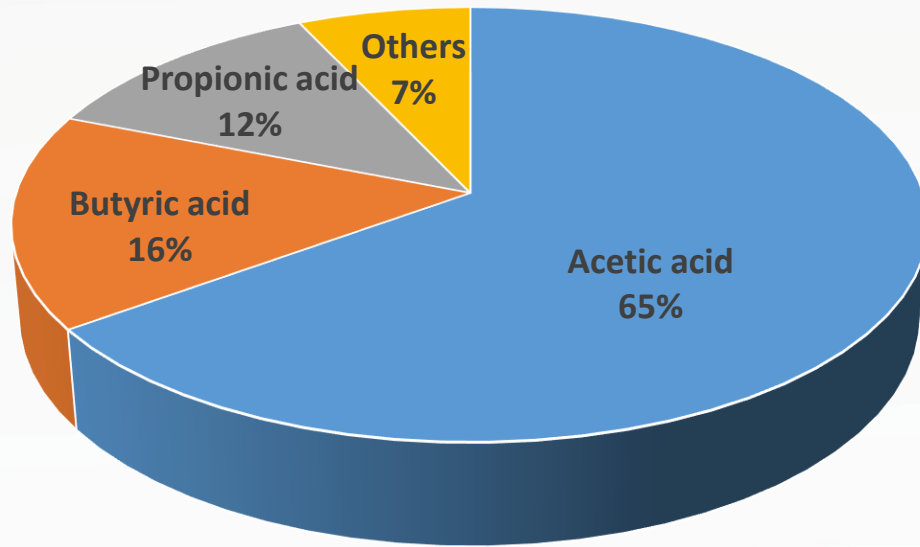
Choct et al 1992 , Jorgensen et al 1996 , Jamroz et al 2002

Sergeant MJ et al 2014, PlosOne Rinttila T et al ,2013

Caecum – The Blind Gut



Types of energy substrates generated in Caecum



All SCFAs

Role of SCFAs

Energy
source

Improves
Productivity

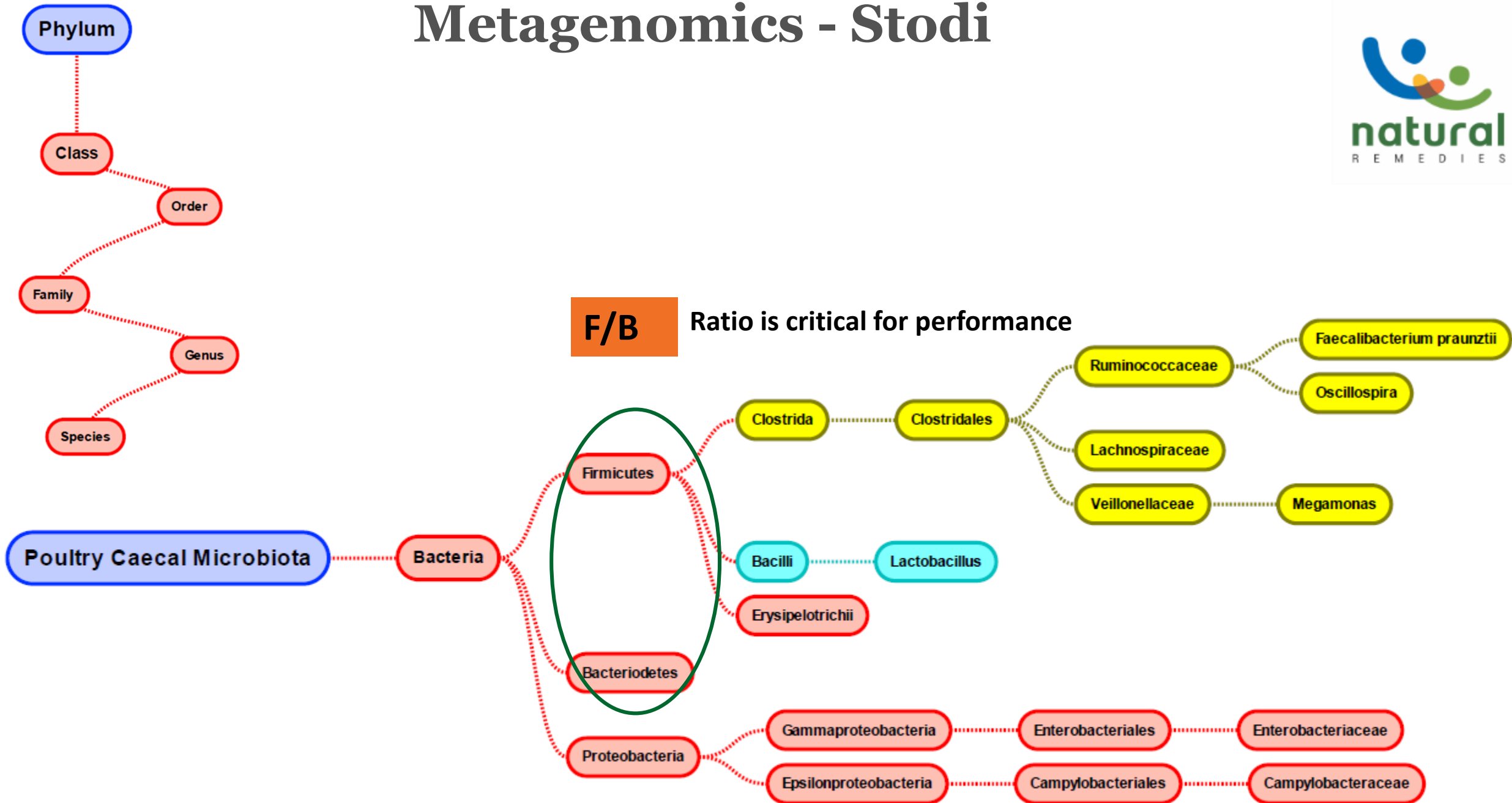


Inhibits
pathogenic
bacteria

Protects
Gut



Metagenomics - Stodi



Major phyla in caecal microbiota



Firmicutes

- Fermentation of dietary compounds
- Generate VFAs
- Harvest energy from diet

Bacteroidetes

- Fermentation of carbohydrates
- Utilization of nitrogenous substances
- Biotransformation of bile acids
- Prevention of pathogen colonization

Proteobacteria

- Pathogenic forms like E.coli, salmonella

**Higher
F/B ratio
means**



Better FCR & body weight

Corrigan et al , 2015



Higher energy harvesting capacity

Costa CM et al PlosOne 2017



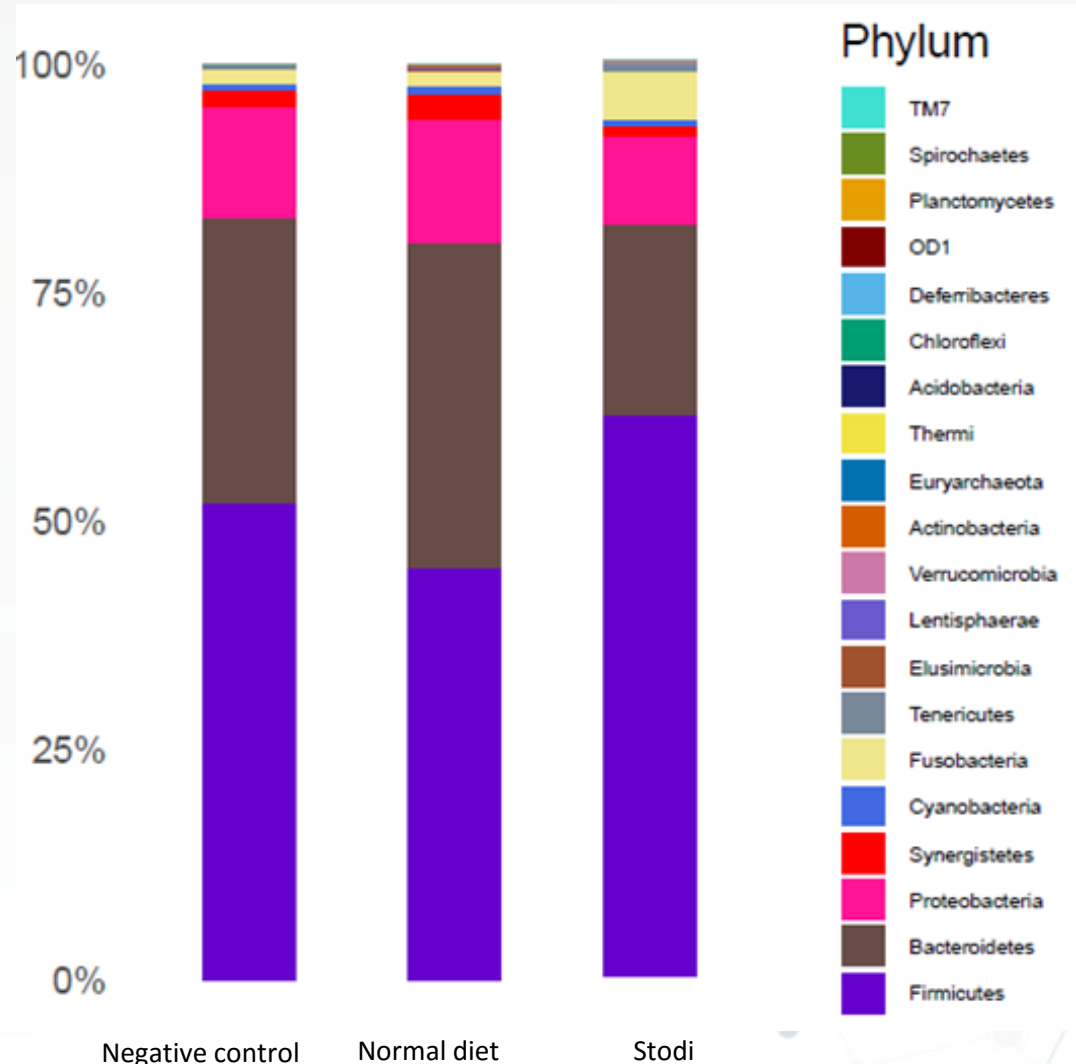
Many growth promoters improve
F/B ratio

Salaheen et al , 2017

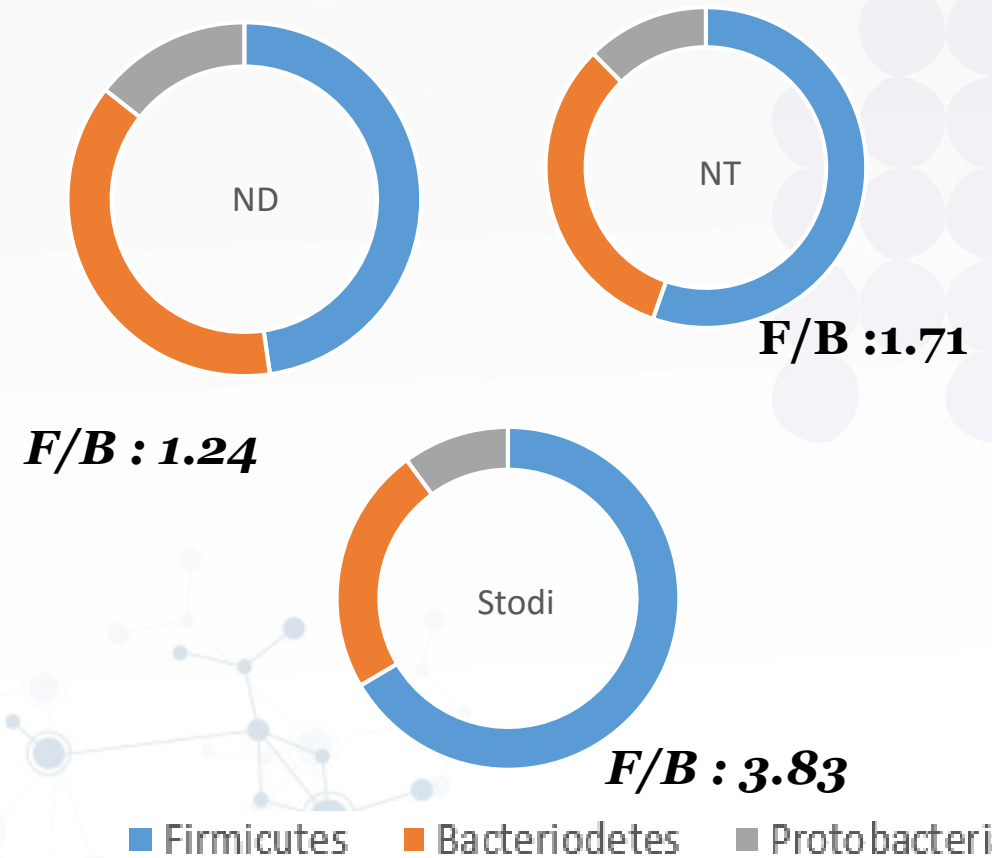
Higher **F:B Ratio** $\propto$ Better **Performance**



Phylum level bar plot



F/B Ratio



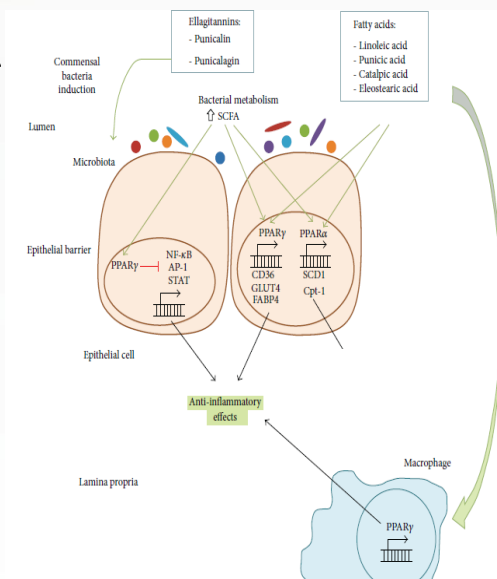
2. Anti Inflammatory Effect

Anti Inflammatory Effect

STODI

Induce production of SCFA
by commensal bacteria

Activating PPAR –gamma
which blocks expression of
proinflammatory cytokines.



Down regulating activation of
Nfkappa –B pathway

Inhibits release of
pro-inflammatory molecules

Reduce inflammation

Anti Inflammatory Effect

Helps in reversing gut damage and helps in re-growing intestinal villi

Diarrhoea induced using
sodium chloride @ 0.75%
in diet

Broiler birds (Cobb 430)

Normal Control:

No excess added
sodium chloride

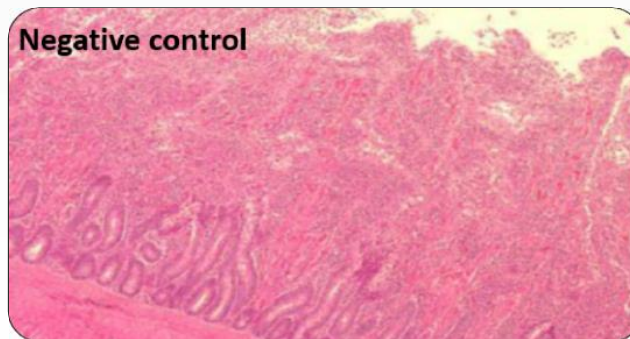
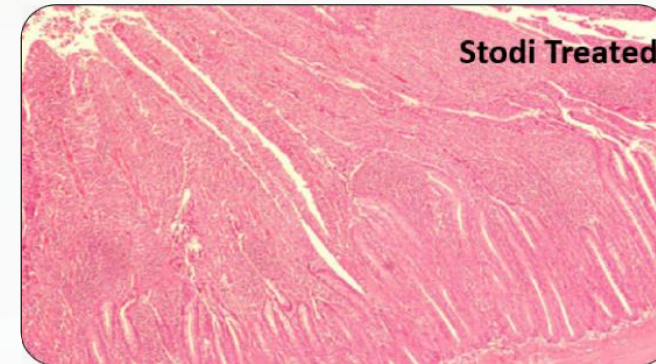
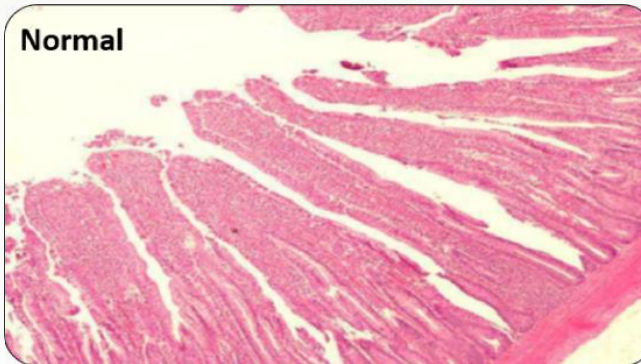
Negative control:

Added sodium chloride
@ 0.75%

Treatment: Neg C + Stodi
@ 1000g /ton of feed

Tissue harvested:

Duodenum on 42nd day



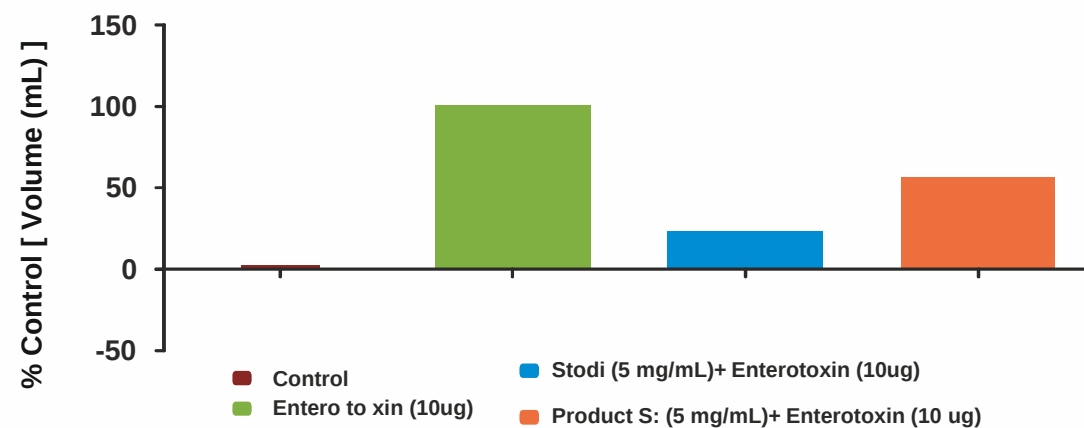
Inference

The salt induced changes in the small intestine (duodenum) like necrotic changes, changes in villi morphology, sloughing of mucosa are reversed by Stodi

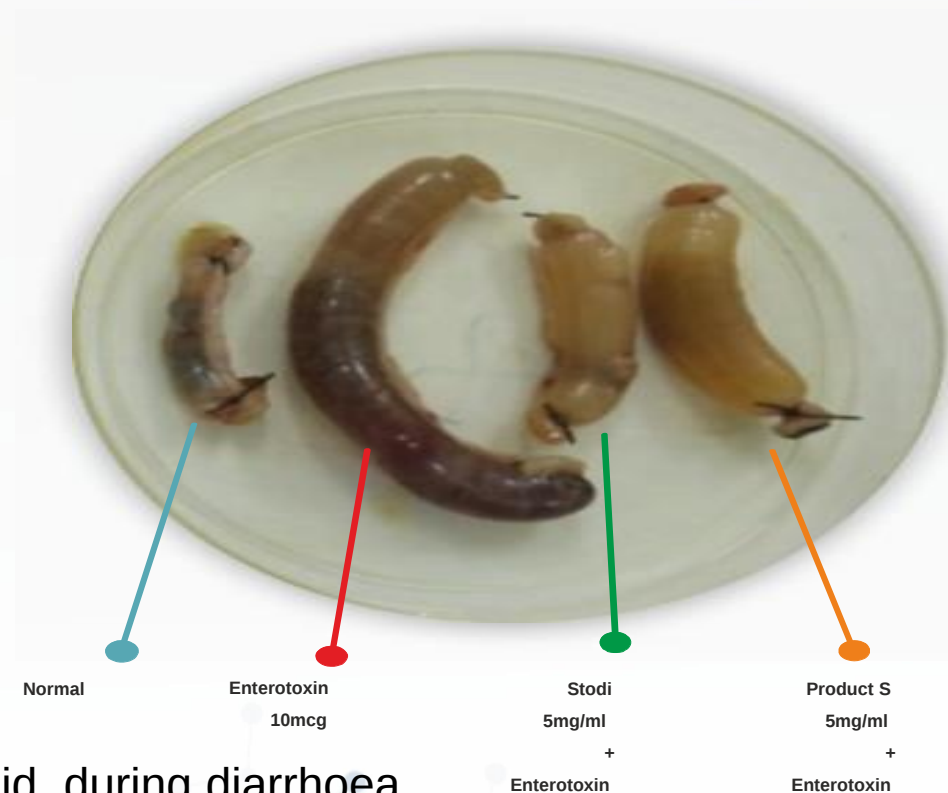
3. Anti Secretory Effect

Effect of Stodi on Ileal Loop Assay

Effect of Stodi vs Product S on enterotoxin induced fluid accumulation



* In Rat ileum at 18 hours of treatment: Volume (mL)



- Stodi helps the gut prevent the loss of excess fluid, during diarrhoea.
- Helps in retention of fluid , hence assisting in better fluid absorption

4. Binds the Excess Water in Gut



Binds the
excess fluid
in gut



Inference

Stodi forms thick pasty consistency after mixing with water

[Click here for full Video](#)

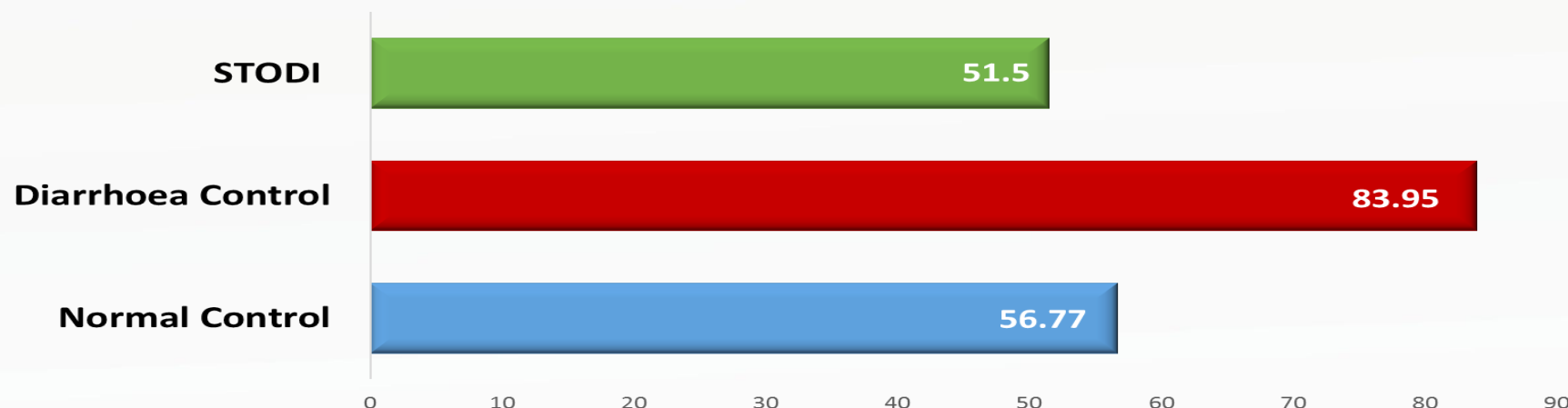


5. Anti Peristaltic Effect



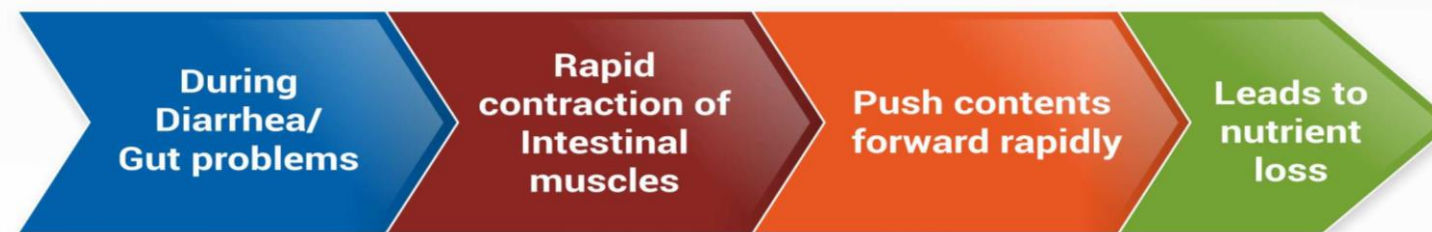
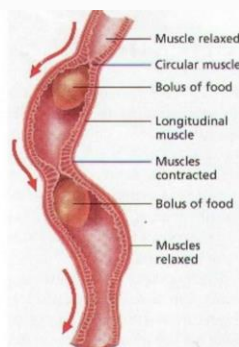
Stodi Improves Gut immunity

Small intestinal Transit (%)



Peristalsis

- series of involuntary wave-like muscle contractions which move food along the digestive tract





Trial Reports

Commercial Parameters



STODI[®]

Definite Diarrhea Domination



Trial Reports (Swine) – A01

Evaluation of STODI on Growth Rate, Feed Conversion Efficiency & Prevention and Treatment of Diarrhoea in Post Weaning Piglets

Farm : Nguyen Thi Thuy
Location: Chuong My, Ha Noi, Vietnam
Breed: F1 (Yorkshire*Landrace)
Age: Post weaning piglets – 26 days
Duration: 32 days

VIETNAM



STUDY DESIGN (Dose Determination Study)

S.No.	Group	No. of Piglets / Group	Duration of Study
1	G1: Control - Antibiotics used to treat Diarrhea	11	32 days
2	G2 - Stodi @ 1 kg per ton / Stodi used upto 2.5 kg/ton to treat Diarrhea	10	
3	G3 - Stodi @ 1 kg/ton & Antibiotics used to treat Diarrhea	10	

G1 group - T. Eimerin + Biosubtil + Coli 200 mixed with feed for first 4 days for prevention of Diarrhea; used Pigcox spray/ Macavet/ Enflox whenever Diarrhea was noticed

G2 group - Piglets were fed basal diet with Stodi at 1 kg/ton and whenever the piglets showed symptoms of Diarrhea, Stodi was added upto 2.5 kg/ton in the diet of affected piglets to treat Diarrhea

G3 group - Piglets were fed basal diet with Stodi at 1 kg/ton and Injected Enflox to treat Diarrhea



Results



Incidences of Diarrhea

	Y	START OF Diarrhea						G1	CONTROL + ANTIBIOTIC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													</
--	---	-------------------	--	--	--	--	--	----	----------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----





Evaluation of Stodi on Growth Rate, FCR, Prevention & Treatment of Diarrhea in Post Weaning Piglets

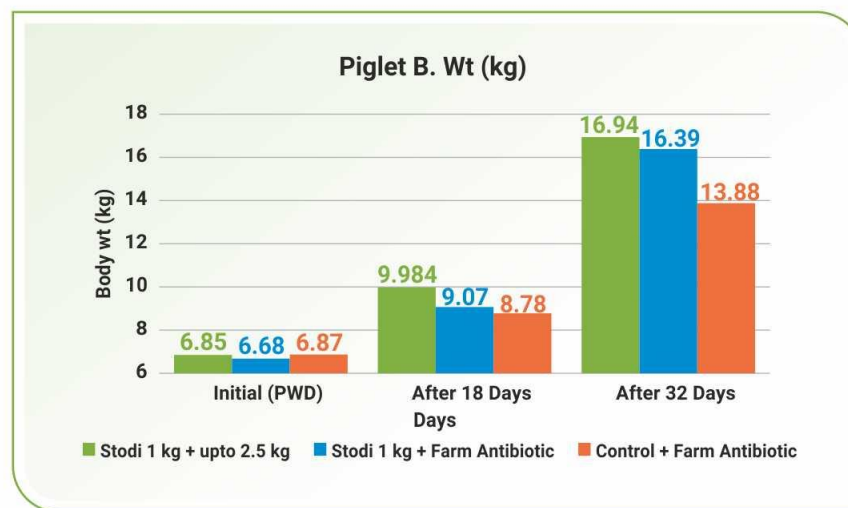
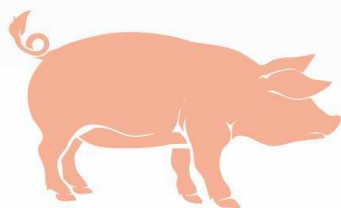


Breed : F1 (Yorkshire*Landrace)

Age : 26 days Piglets

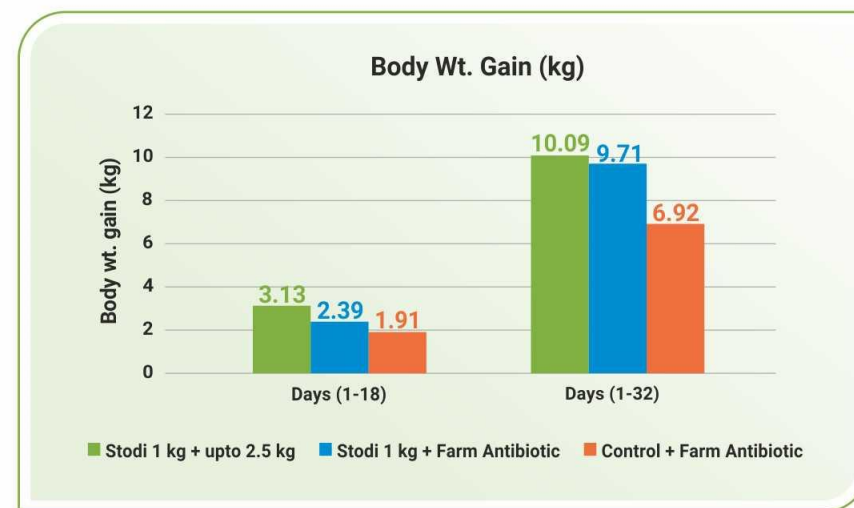
Duration: 32 days

VIETNAM



Values are expressed as Mean $\pm$ SEM; n=10 - 11

*p<0.05 as compared to control based on one-way ANOVA followed by Dunnett's Multiple Comparison Test



Values are expressed as Mean $\pm$ SEM; n=10 - 11

p<0.01 & *p<0.001 as compared to control based on one-way ANOVA followed by Dunnett's Multiple Comparison Test

Inference

Stodi has improved growth rate, FCR and also reduced diarrhea incidences & recurrence

[Click here for full report](#)

[Click here for full report 2](#)





Evaluation of Stodi on Growth Rate, FCR, Prevention & Treatment of Diarrhea in Post Weaning Piglets

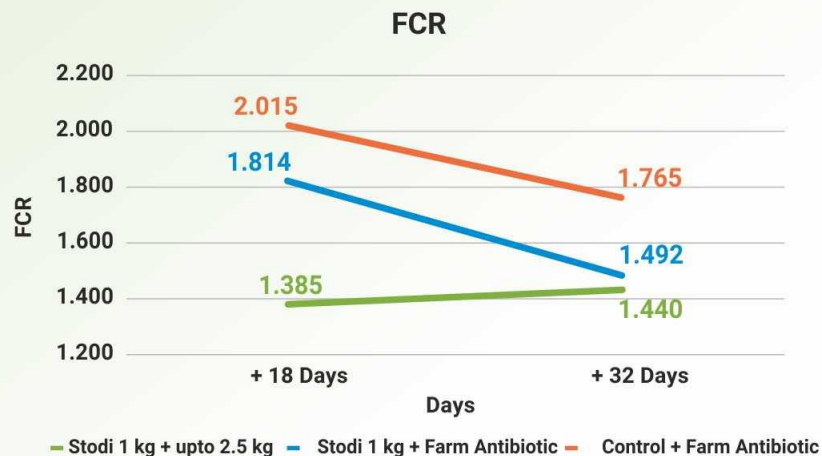


Breed : F1 (Yorkshire*Landrace)

Age : 26 days Piglets

Duration: 32 days

VIETNAM



Diarrhoea Incidence

Group	No of incidence of Diarrhoea	Maximum duration of diarrhoea (No. of Days)	No of Piglets having diarrhoea	Animals Recovered without Interference
G1 – Control (& Antibiotic)	19	3	7	1
G2 – Stodi 1 kg (Stodi upto 2.5 kg)	2	1	2	2
G3 - Stodi 1 kg (& Antibiotic)	4	2	3	1

Inference

Stodi has improved growth rate, FCR and also reduced diarrhea incidences & recurrence

[Click here for full report](#)

[Click here for full report 2](#)



Trial Reports (Swine) – EU01

Comparative Study of The Effect of STODI[®] on Piglets in Post-Weaning Diarrhoea

Researchers: Albert Finestra & Laura Perez,

Analytical & Statistical Report: Veterinary University of Lleida, Spain

Location: South Lleida, Spain

Breed: DanBred Hybrid

Time: February/March, 2019

Age: 21 days

Duration: 6 weeks



Study Design

Group	Phase/Treatments	Feed	No. of piglets
Control	Pre-starter	ZnO 3100 ppm	129
	Starter	300 ppm Amoxicillin (2w)	
Stodi [®]	Pre-starter	Stodi [®] 4 kg/Tm	133
	Starter	Stodi [®] 2 kg/Tm + 300 ppm amox (2w)	

Trial Protocol

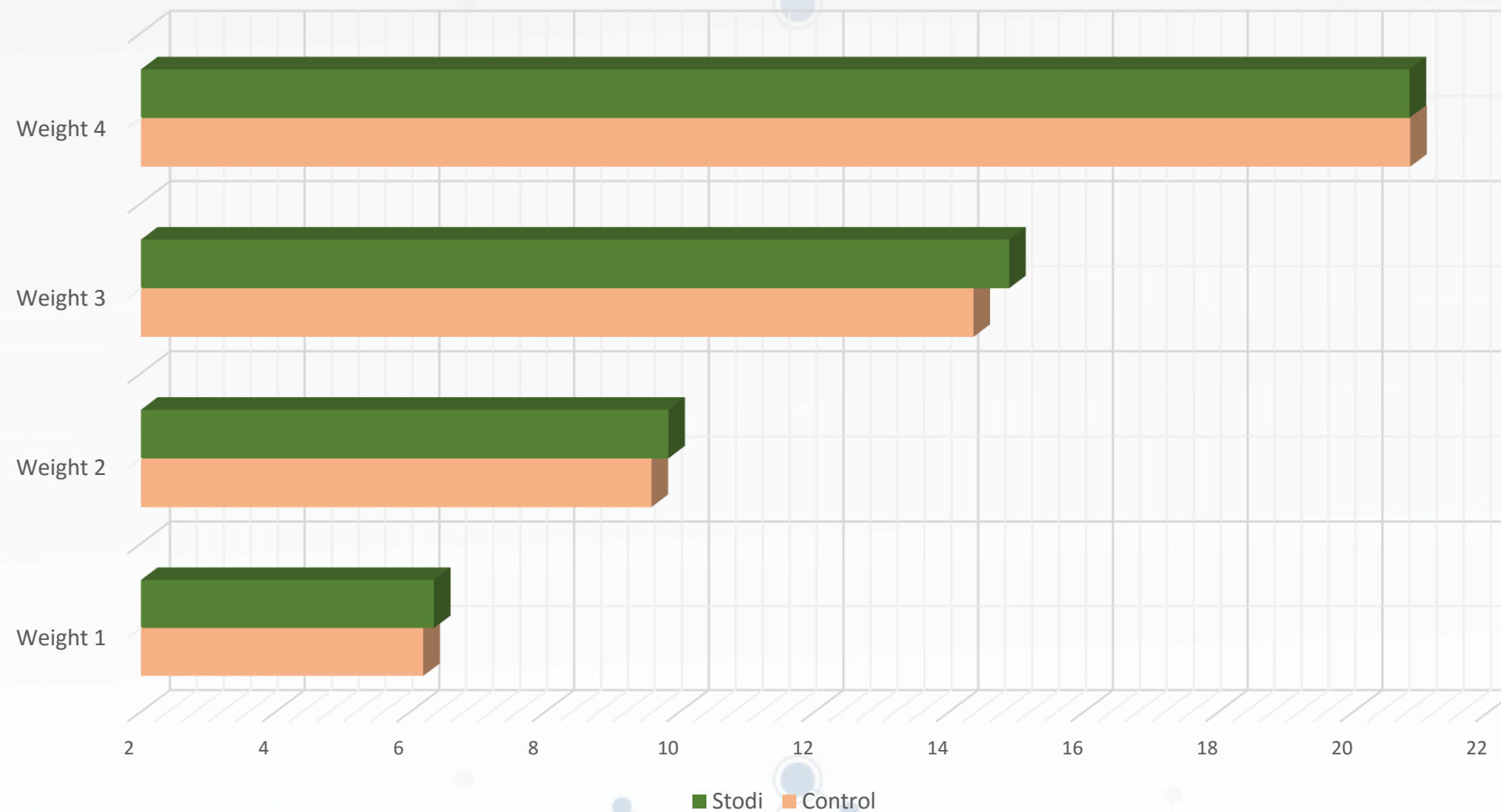
Starting Date: 22 February, 2019



Age in Days	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59		
Feed Type																																									
Feed Type	Pre-Starter (21-35 Days)															Starter - 1 (36-49 Days)														Starter - 2 (50-59 Days)											
Control GP	ZnO 3000 PPM															Amoxicillin 300 PPM																									
Treatment GP	STODI - 4 KG															Amoxicillin 300 PPM + STODI 2 KG														STODI 2 KG											
Weighing 26 Days						26																																			
Weighing 35 Days															35																										
Weighing 49 Days																													49												
Weighing 59 Days						↓									↓														↓												59

Average Body Weight (kg)

Group	WEIGHT 1 (26 days)	WEIGHT 2 after pre-starter phase (36 days)	WEIGHT 3 after starter 1 (51 days)	WEIGHT 4 after starter 2 (61 days)
Control	6.19	9.58	14.36	20.84
Stodi [®]	6.35	9.83	14.89	20.83



Results show a body weight improvement trend in the Stodi group.



Faecal Scoring

Group	Fecal Scoring
Control	1.18
Stodi [®]	1.00

Faecal Scoring was better in Stodi group.



Conclusions

- Production parameters in the STODI group were similar or slightly better vs. ZnO group:
 - Average body weight
 - Faecal score
- Good clinical performance with STODI:
 - No cases of diarrhoea
 - No mortality

STODI can effectively be used as ZnO replacement in the post-weaning period.

Trial Reports (Swine) – EU03

Effect of STODI[®] in a problematic farm (post-weaning and early fattening)

Location: East Lleida, Spain
Breed: Topigs
Time: February/March, 2019
Age: 21 days
Duration: 58 days



STUDY DESIGN

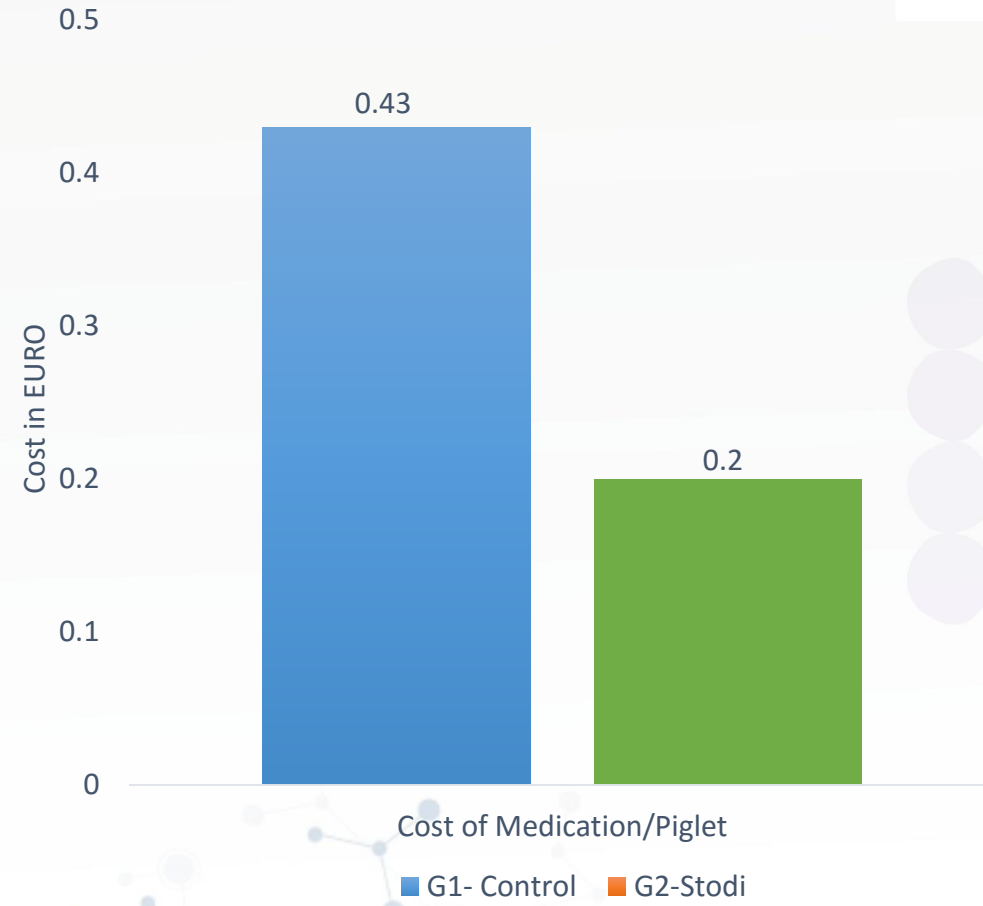
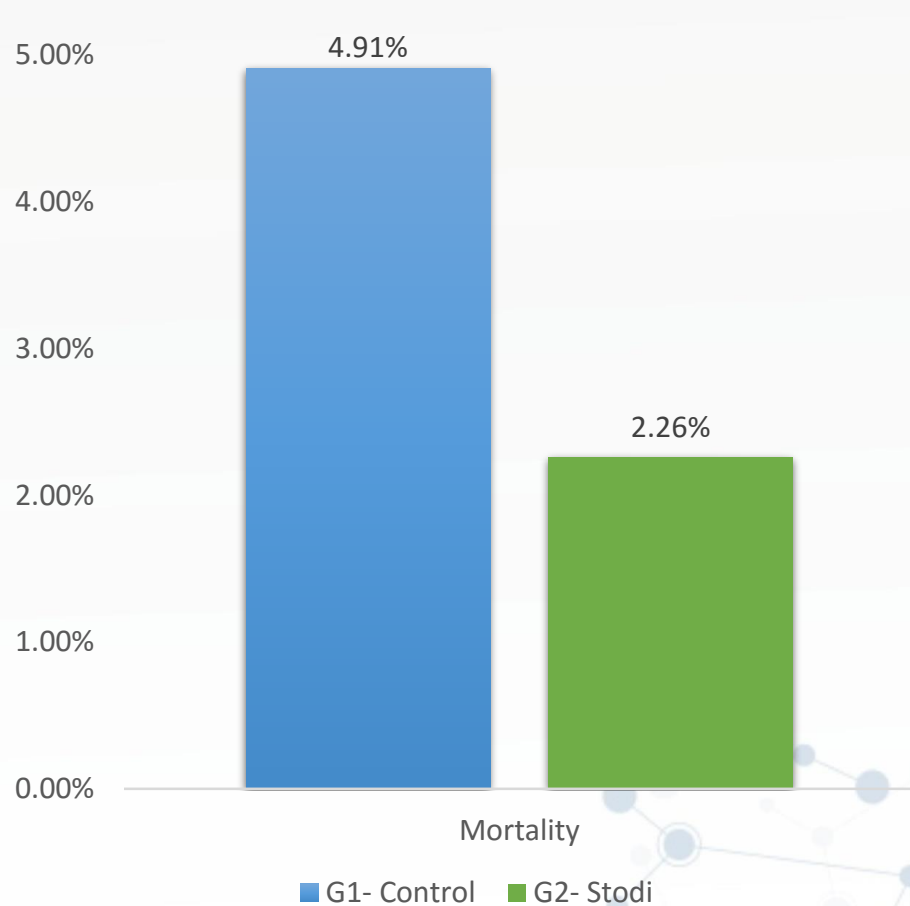
S.No.	Phase	Treatment	Number of Piglets	Duration of Study
1.	Pre- Starter	ZnO 3 kg/ton	4500	14
2.	Starter 1	ZnO 2 kg/ton + Stodi 2 kg/ton	4500	14
3.	Starter 2 (early fattening)	Stodi 3 kg/ton	4500	30

*PRRS positive farm.

* Some cases of diarrhoea 6 days after starting fattening stage. The animals were treated with Lismay (lincomycin + spectinomycin) in drinking water during 5 days. The affected animals were also treated with enrofloxacin (injectable).



Significant Reduction in Mortality & Cost of Medication vs. other previous treatments



Feedback / Conclusions



1. Stodi works much better than other phytogetic products tested.
2. Very significant improvement of checked parameters.
3. Complex environment farm: PRRS+.
4. Probably E. coli involved.

STODI helps to reduce mortality rate and medication cost by 50% compared to other natural products.





STODI Trial Report (Poultry):2



Multiplicamos confianza y ganancia.

Location: Italcol, Colombia

Breed: Ross 308

Time: April, 2018

Trial Period: DOC to Day 35





COLOMBIA



Evaluation of Stodi on Litter moisture%

Breed : ROSS 308
Age : DOC to Day 35
Time : April 2018



Litter Moisture%

Serial number	Sex	TX	Average Weight 35 days	Number of birds	Cumulative mortality 35 days	Cumulative Average Consumption 35 days	FCR 35 days	Litter moisture %
1	M	CONTROL	2,227	1,985	2.70%	3,322.369	1.492	38.6%
2	M	TX	2,168	2,006	3.19%	3,286.841	1.516	35.4%
3	H	CONTROL	1,929	1,995	2.21%	2,951.612	1.53	41.4%
4	H	TX	1,954	1,993	2.30%	2,934.488	1.502	38.8%
Mixed		CONTROL	2,078	3,980	2.45%	3,136.603	1.509	40.0%
Mixed		TX	2,061	3,999	2.75%	3,111.281	1.51	37.0%
Total			2,069.5	7,979	2,60%	3,123.911	1.51	38.6%

3% reduction in Litter moisture

Inference

Stodi reduced Litter moisture by 3 percent points





STODI Trial Report (Layers):3



Multiplicamos confianza y ganancia.

Location: Italcol, Colombia

Time: Dec, 2018

Trial Period: 15 days



Dirty Eggs – (Layers)

Barn No	3	4	5	6	7	Total
No. of Birds	6,300	14,680	3,290	3,260	3,680	31,210
No. Of Egg Produced	6,057	13,190	2,929	3,060	3,490	28,726
% of Production	96 %	90 %	89 %	94%	95%	92%
No. of Dirty Eggs before Stodi	1,200	2,400	510	540	690	5,340
No. of Dirty Eggs after use of Stodi	330	900	210	195	330	1,965
% of Dirty Eggs before Stodi	19.81%	18.20%	17.41%	17.65%	19.77%	18.59%
% of Dirty Eggs after use of Stodi	5.45%	6.82%	7.17%	6.37%	9.46%	6.84%
Difference	14.36%	11.37%	10.24%	11.27%	10.32%	11.75%

STODI Trial Report (Poultry):4

Location: Cargill, Taiwan

Breed: Layer BV

Time: May, 2018

Trial Period: 3 days



Litter Condition before



Litter Condition after 3 days



Loose dropping corrected in just 3 days

Effect of STODI[®] in a problematic farm (Broiler)

Location: Czech.R

Breed: Ross 308

Time: January, 2020

Age: DOC to Day 35



STUDY DESIGN

S.No.	Groups	No of Birds	Duration
1.	Control Group	1500	35 Days
2.	Stodi Group	1500	

Phase	Stodi Dosage
Starter	2kg /ton
Grower	1.5kg/ton
Finisher	1kg/ton

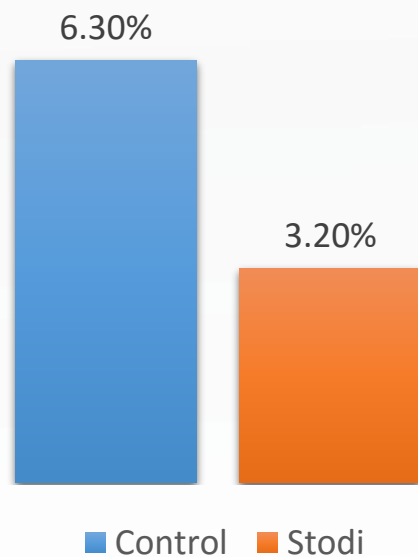
- NE Positive farm
- Control Group – Natural Anti-Coccidia
- Amprolium was added in water at recommended dosage in both the groups



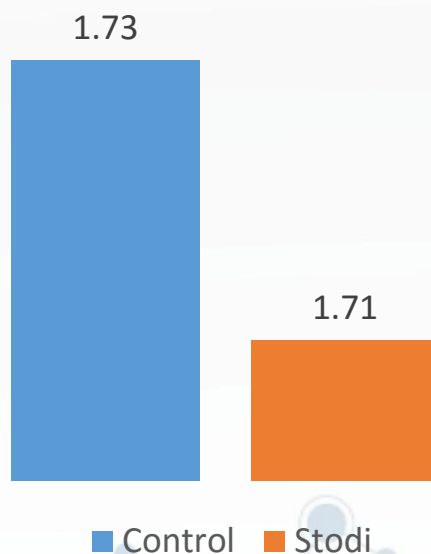
Significant Reduction in Mortality & Better FCR



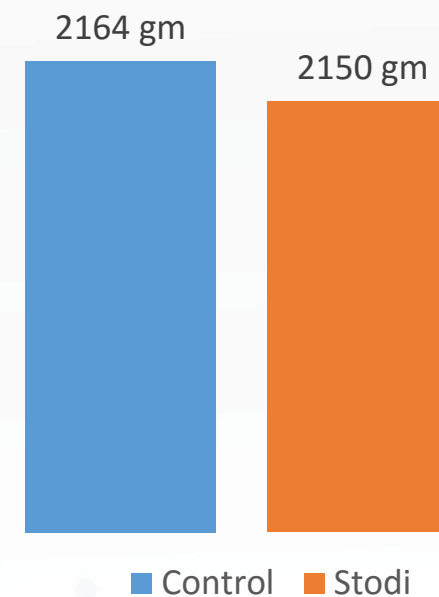
Mortality



FCR



Avg Weight



STODI helped to reduce mortality rate by 50% compared to other natural products in complex farm conditions



Publications on STODI®



Pharmacogn. Res.

A multifaceted peer-reviewed journal in the field of Pharmacognosy and Natural Products
www.phcogres.com | www.phcog.net

ORIGINAL ARTICLE

Modulation of Chicken Cecal Microbiota by a Phytogetic Feed Additive, Stodi®: A Metagenomic Analysis

Saravana Kumar Marimuthu, Brindhalakshmi Balasubramanian, Ramasamy Selvam, Prashanth D'Souza

Animal Health Science, R&D Centre, Natural Remedies Private Limited, Bengaluru, Karnataka, India



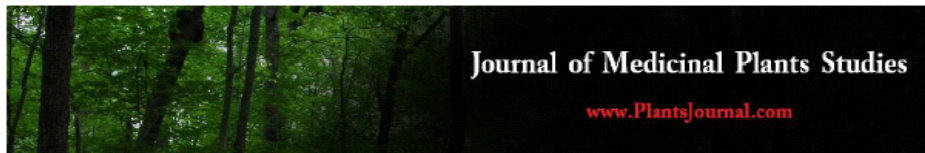
Original Research Article

Anti-diarrhoeal activity of a polyherbal formulation in rats and elucidation of its cellular mechanisms

Sasikumar Murugan¹, Divya Purusothaman¹, Edwin Jothie Richard¹, Nehru Sai Suresh Chalichem¹, Bharathi Bethapudi^{1*}, Prasanna Raja Chandrasekaran¹, Chandrasekaran Chinampudur Velusami¹, Prashanth D'Souza¹, Deepak Mundkinajeddu¹

¹Research and Development centre, Natural Remedies Pvt Ltd, Plot No. 5B, Veerasandra Indl. Area, 19th K.M. Stone, Hosur Road, Bangalore 560100, Karnataka, India

Journal of Medicinal Plants Studies 2019; 7(5): 141-145



Journal of Medicinal Plants Studies

www.PlantsJournal.com

ISSN (E): 2320-3862
ISSN (P): 2394-0530
NAAS Rating: 3.53
JMPS 2019; 7(5): 141-145
© 2019 JMPS
Received: 21-07-2019
Accepted: 25-08-2019

Muralidhar S Talkad
Animal Health Science, R&D

Small intestinal gut-associated lymphoid tissue histomorphometry analysis in broilers supplemented with Stodi®

Muralidhar S Talkad, Prashanth D'souza and Saravanakumar Marimuthu

JOURNAL OF ADVANCED VETERINARY AND ANIMAL RESEARCH

ISSN 2311-7710 (Electronic)

<http://doi.org/10.5455/javar.2019.f379>

A periodical of the Network for the Veterinarians of Bangladesh (BDvetNET)

December 2019

VOL 6, NO. 4, PAGES 536-543



ORIGINAL ARTICLE

Evaluation of a polyherbal formulation for the management of wet litter in broiler chickens: Implications on performance parameters, cecal moisture level, and footpad lesions

Saravanakumar Marimuthu¹, Brindhalakshmi Balasubramanian¹, Ramasamy Selvam², Prashanth D'Souza¹

¹Animal Health Science, R&D Centre, Natural Remedies Private Limited, Veerasandra Industrial Area, Bengaluru 560 100, India

²Technocommercial, Marketing, Natural Remedies Private Limited, Veerasandra Industrial Area, Bengaluru 560 100, India



CERTIFICATIONS OF STODI[®]



ISO 22000
BUREAU VERITAS
Certification



FAMIQS



ISO 9001:2015
BUREAU VERITAS
Certification



ISO 14001
BUREAU VERITAS
Certification



ISO OHSAS 18001
BUREAU VERITAS
Certification



Dosage in Poultry[®]



Indications

To prevent/treat the non-infectious diarrhoea

As supportive to treat infectious diarrhoea along with specific treatment

Dosage

- For healthy gut function & prevention of diarrhoea : 1 Kg per ton of feed
- For disturbed gut function & control of diarrhoea : 1.5-2 kg per ton of feed



Dosage in Swine[®]



Indications

To prevent/treat the non-infectious diarrhoea

As supportive to treat infectious diarrhoea along with specific treatment

Dosage

- For healthy gut function & prevention of diarrhoea : 1 to 2 Kg per ton of feed
- For disturbed gut function & control of diarrhoea : 2-3 kg per ton of feed



Creating smile in 18 countries



STODI[®]

Standardised Botanical Powders from Selected Herbs



- Protective shield over gut mucosa
- Checks hypersecretion
- Reduces intestinal fluidity
- Binds excess water
- Normalizes peristalsis

Stops Diarrhea



Secures Growth

- Less nutrient loss
- Better absorption of nutrients

- Safe for food chain
- No residue
- No toxicity



Safe for food chain



Safeguards Gut Integrity

- Improves intestinal villi health
- Augments tight junctions
- Improves gut microflora balance



Safe for Environment

- No antimicrobial resistance
- Reduces ammonia production



25 kg &
500 kg
Bag



STODI[®]

Definite Diarrhea Domination

Thank
You

